



ARCHITECTURE MINN

CENTERS OF ATTRACTION

Colleges and universities draw their communities to campus with engaging new arts and performance spaces.

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PASSIVE PROGRESSIVE

Three Minnesota buildings show how passive design achieves both beauty and extreme energy efficiency.

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TOWN TALK

Carleton College arts director Steve Richardson touts the school's game-changing new arts center.

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Gateways to Campus

VOLUME 38 NUMBER 01 JAN/FEB 12 \$3.95

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The grand reopening

COVER: UNIVERSITY OF MINNESOTA
WEISMAN ART MUSEUM
PAGE 20

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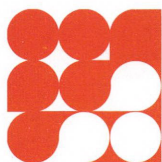
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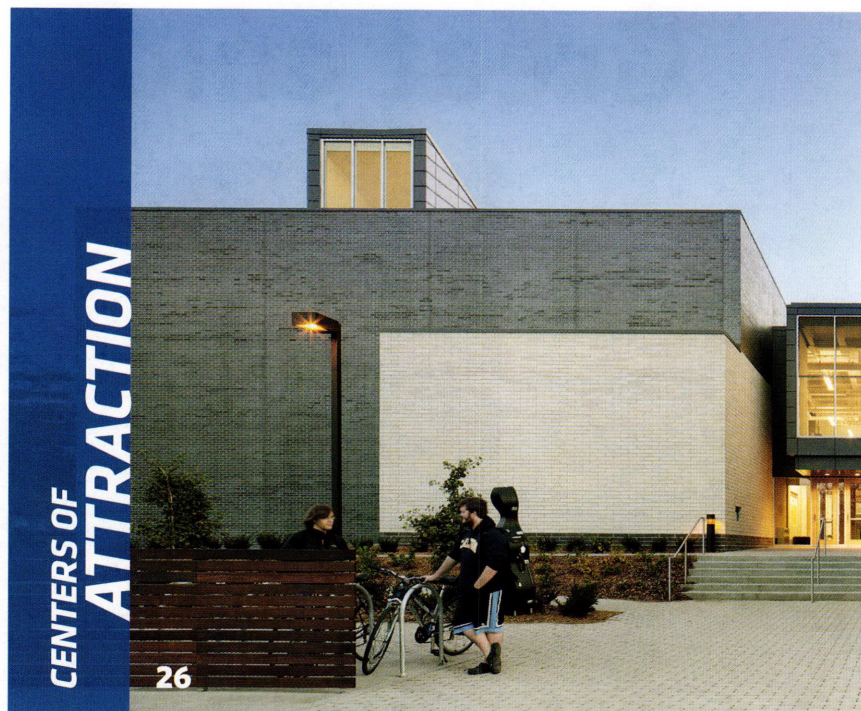
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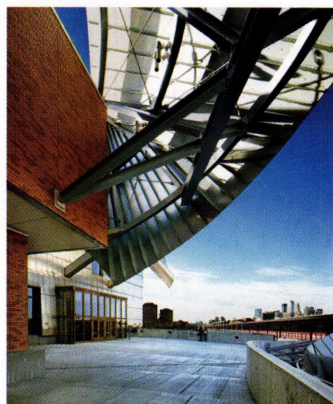
ARCHITECTURE MN

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Architecture Minnesota, the primary public outreach tool of the American Institute of Architects Minnesota, is published to inform the public about architecture designed by AIA Minnesota members and to communicate the spirit and value of quality architecture to both the public and the membership.



Features



ON THE COVER

Weisman Art Museum expansion
Minneapolis, Minnesota

"The Weisman Art Museum—WAM! Either you love or you hate it," says photographer **Pete Sieger**. "I love it, and that acronym really works for me. Here is a work of art containing art and anchoring a gateway to the University of Minnesota campus, all in a truly exceptional way."

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Colleges and universities welcome their surrounding communities to campus with arresting new museum galleries, concert halls, and arts buildings.

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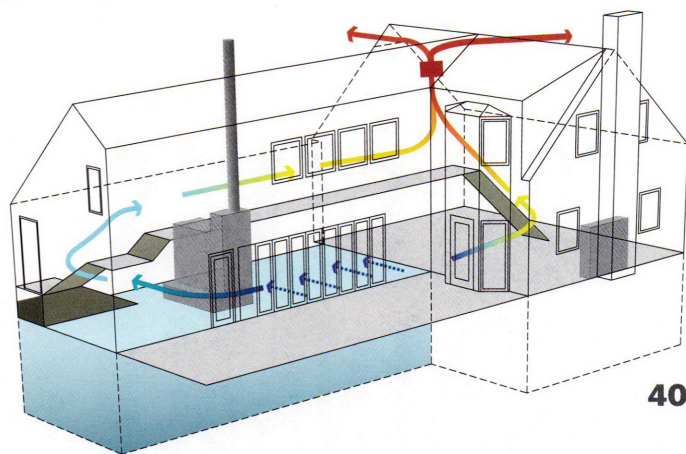
40 *Passive Progressive*

By Mary Guzowski

"Passive design—elemental design solutions for heating, cooling, ventilating, and lighting a building through non-mechanical means—is still the exception rather than the norm," writes Mary Guzowski. "But interviews with four Minnesota architects reveal that the movement is taking hold in our region, and that the harvesting of free energy from the sun and wind can lead to beautiful and meaningful architecture. Whether they're striving for rigorous Passivhaus standards or just 'commonsense' passive solutions, these architects remind us that the benefits of passive design go far beyond energy reduction to influence how we live and connect with our built and natural environments."



JAN/FEB 12



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PROGRESSIVE

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CREDIT SCORE

In my experience, architects are a generally optimistic and collegial cast of characters. Most are blessed with a keen sense of humor. But there's one thing that makes even the merriest among them downright cranky: A newspaper article or newscast segment that enthuses over an engaging new library or arts center without citing the architecture firm that shaped it and guided it to completion. It doesn't even have to be *their* project. Architects take exception to any building-related media coverage that fails to give credit where credit is due.

On numerous occasions over the past seven years, I've called an ordinarily genial architect and been greeted with a low growl. "See the story in the paper this morning?" are often the next words out of his or her mouth. "Paragraphs upon paragraphs on the 'soaring lobby' and the 'breathtaking performance hall,' but they only bothered to interview the acoustical consultant." For architects and architecture enthusiasts, these glaring omissions signal one of two things: Either media professionals lack basic knowledge about how buildings are created, or they—and perhaps also their readers and viewers—vastly undervalue the role that architects play in making buildings safe, functional, environmentally friendly, and beautiful.

I'd be on my high horse about this dereliction of journalistic duty if I hadn't recently made the same error myself.

Those of you who read this magazine regularly know that our profiles of new buildings are chock-full of quotes from the architects. But our lengthy September/October Town Talk interview with developer George Sherman on his firm's challenging renovation of Riverside Plaza made not one mention of Blumentals/Architecture's critical role in that ongoing project. Sure, Town Talk's format and focus is different from that of our project features. But when an architect-friendly developer revitalizes a Ralph Rapson-designed landmark, an architecture firm *has* to be centrally involved. And I didn't think to look into that.

Turns out Blumentals has been a big part of the Riverside Plaza effort since it launched in 2008. Led by principal Andy Swartz, AIA, the firm helped develop the scope of the \$65 million rehabilitation, surveyed all 1,300 housing units, and continues to manage the sometimes competing requirements of the U.S. Department of Housing and Urban Development and the National Park Service (the building is on the National Register and thus qualifies for historic tax credits). "The project has had a kaleidoscope of issues—and joys," says Swartz. "Infrastructure work isn't terribly glamorous, but it's gratifying to know that we've helped stabilize this complex for another 30 or 40 years. Everyone in the city has an opinion about this place. Riverside Plaza is part of our urban and cultural fabric."

*Architecture Minnesota's
sterling architectural credit
score took a hit this past fall.*

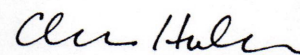
EDITOR'S
NOTE

The remedy for these omissions is you, the reader. When you come across an architecture story that doesn't at least note the designers, email the columnist or reporter—or editor, in my case. Twenty or 30 "Who was the architect?" queries in an inbox will ensure that the oversight doesn't happen again.

* * *

Speaking of giving credit, we at *Architecture Minnesota* want to extend our gratitude to those who helped make 2011 our best year yet. In addition to launching a new website and video competition, we took home three Gold awards and one Silver at the Minnesota Magazine & Publishing Association's Excellence Awards in November. How does a magazine with a small staff achieve that level of recognition? For starters, we work with some of the best writers and photographers in the business. And then there's Tilka Design, our talented graphic design firm. Think *Architecture Minnesota* wakes up in the morning looking this good? Guess again.

To all of our contributors, a heartfelt thanks.



Christopher Hudson
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AIA Minnesota is the voice of the architecture profession, dedicated to serving its members, advancing their value, and improving the quality of the built environment.

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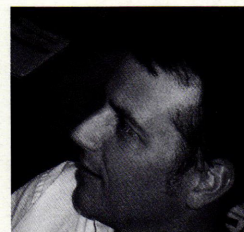
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Get to know our writers and
photographers. They're an
interesting bunch.



Retired architect and travel enthusiast **BILL ARMSTRONG, AIA**, recently completed his term on the State Designer Selection Board.

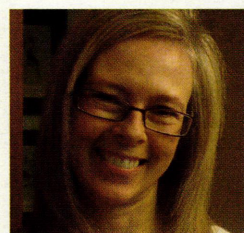
BILL BEYER, FAIA is an architect with Opus Architects & Engineers and a longtime contributor to *Architecture Minnesota*.

AMY GOETZMAN is a Minneapolis freelance writer. She writes about the arts and culture and other inspiring things that happen in inspiring spaces.



MARY GUZOWSKI is a professor in the University of Minnesota School of Architecture, where she teaches and conducts research related to sustainable design. She's the author of *Towards Zero Energy Architecture: New Solar Design* (Laurence King Publishers, 2010).

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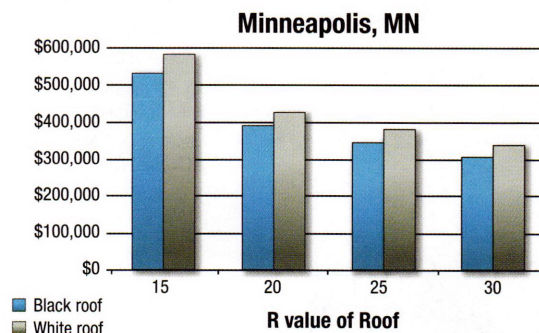


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FOR MORE GREAT ARCHITECTURE COVERAGE AND INFO ON OUR POPULAR VIDEO COMPETITION, VISIT THE ARCHITECTURE MINNESOTA WEBSITE TODAY

VIDEOTECT 2, *Architecture Minnesota's* second annual video competition, is in full swing, so grab your camera and get going. The topic? Sustainable transportation and its enhancement through quality design. The length of videos we're looking for? Thirty to 120 seconds. The timeline? See dates below. All of the entries will be posted on our website for public viewing and voting, and many will be shown at the big-screen premiere—a high-energy awards program at the Walker Art Center Cinema. For more on Videotect 2, including registration, guidelines, and prize money, visit architecturemn.com.



TOM DOLAN

ENTER

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due January 23

VOTE

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February 1-10

PARTY

Walker screening
event March 1

BLOG HIGHLIGHTS

Architecture Minnesota editor Christopher Hudson and a variety of contributors highlight built-environment news and events around the state, preview upcoming magazine features, and keep you up-to-date on Videotect on the architecturemn.com blog.

Duh, Winning! (November 13) debuted Ryan Siemers' highly entertaining video on the making of the winning entries of the first Videotect competition. Recommended viewing for all Videotect contestants.

Fifty Years of Magnitude (November 3) presented a slideshow on the design and construction of the venerated St. John's Abbey Church in Collegeville, Minnesota. St. John's archivist Brother David Klingeman assembled the images in celebration of the landmark's 50th anniversary.

In **Cities Sampler** (October 5), Christopher Hudson reviewed *Urbanized*, documentary filmmaker Gary Hustwit's exploration of the enormous urban-design challenges facing cities worldwide.

Screen Capture clicks through all of the additional content at architecturemn.com.

SCREEN
CAPTURE

VIDEOS

After you've read our print edition cover to cover, be sure to check out all the videos on architecturemn.com. Our high-quality clips bring the subjects of the articles—designed spaces and the people who create and inhabit them—to life.

▶ The newly expanded and supremely photogenic **Weisman Art Museum** (page 20) is beautifully captured in a short film by IDE[A] (www.imagingarchitecture.com). Even if you've already made several visits to the bigger and better Weisman, you'll find something in this video you haven't seen before.

▶ To complement our Studio visit to the **4RM+ULA office** (page 15) in Lowertown St. Paul, we're showing a creative short video the firm produced to highlight its design philosophy and areas of expertise. 4RM+ULA often collaborates with public artists, and the video has an engaging way of reflecting that.



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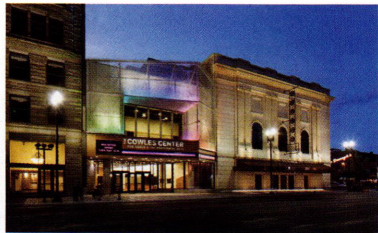


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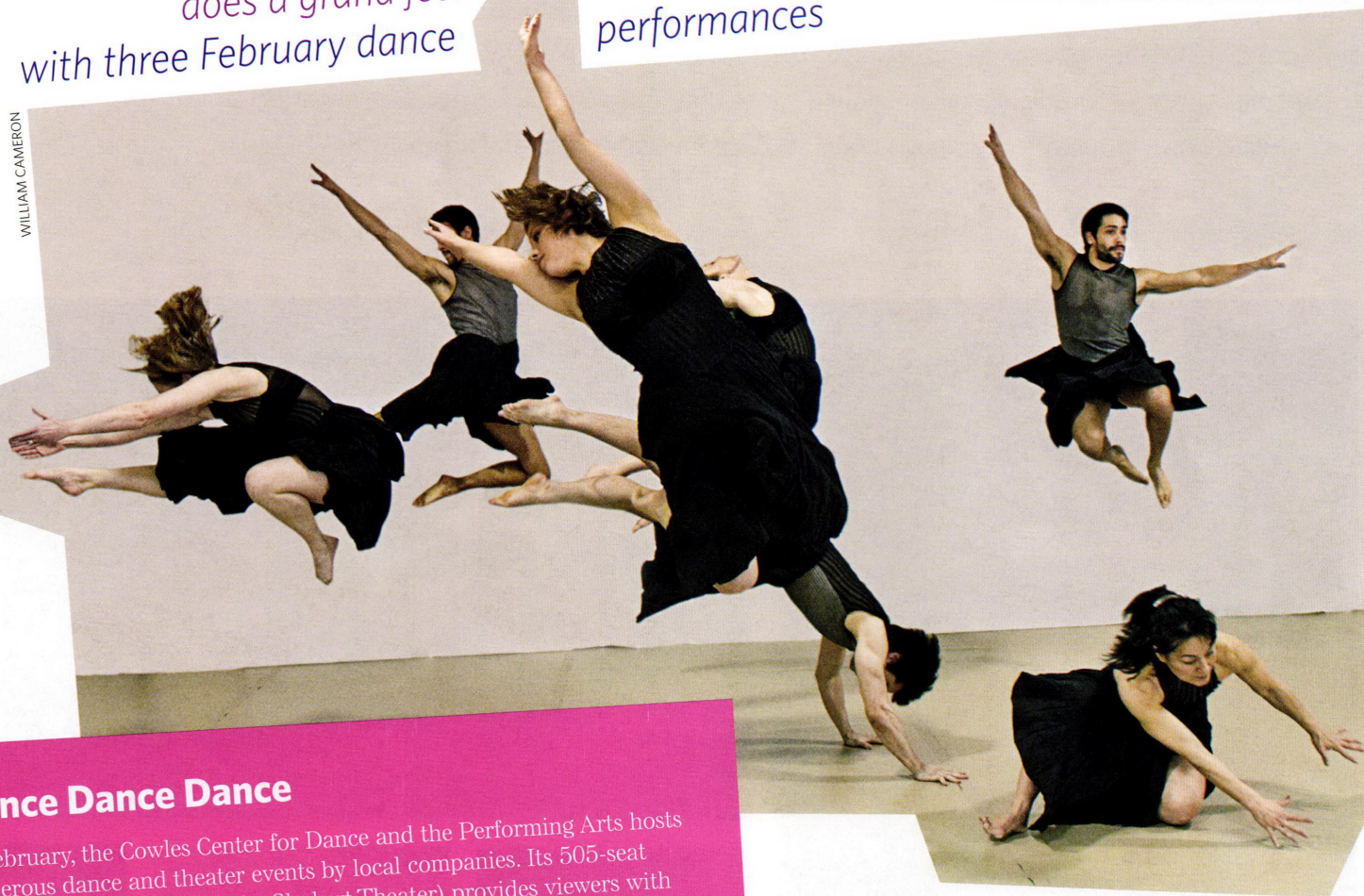
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Last September, the 2,908-ton Shubert Theater, which in 1999 was transported from Block E to Block D in downtown Minneapolis, reopened as the theater portion of the Cowles Center for Dance and the Performing Arts. The building was refurbished and linked to another historic structure, Hennepin Center for the Arts, by Miller Dunwiddie Architecture. The link houses the theater's lobby and ticketing on the first floor and the glass-walled Target Education Studio—an event space and home of the Cowles Center's long-distance learning program—on the second.

The new Cowles Center in Minneapolis
does a grand jeté
with three February dance
into leap year
performances

WILLIAM CAMERON



Dance Dance Dance

In February, the Cowles Center for Dance and the Performing Arts hosts numerous dance and theater events by local companies. Its 505-seat Goodale Theater (formerly the Shubert Theater) provides viewers with excellent sightlines: No seat is more than 65 feet from center stage. If you're in the mood to sample some local dance, and experience a new theater with a storied history, then consider these productions.

Beyond Ballroom Dance Company

February 4–5

The champion ballroom dancers who created and perform in this company—the nation's only ballroom-dance theater group—reconfigure the waltz, tango, and foxtrot for the concert stage with giddy insouciance and sexy eloquence. Sequins, glitter, flash, and panache galore.

Black Label Movement (above)

February 10–12

"We do our own stunts," is this company's motto. No kidding. This highly physical dance-theater company, cofounded by Carl Flink (director of the Department of Theater Arts and Dance at the University of Minnesota) and Emilie Plauche Flink (both of whom danced with the José Limón Dance Company), performs daredevil work that will take your breath away. The show includes the new works "Visceral" and "HIT."

Zorongo Flamenco Dance Theatre

February 24–26

Susana di Palma, the founder of this vibrant company that continues to push the evolution of flamenco dance into a multicultural dance form, presents "Zorro in the Land of the Golden Breasted Woodpecker (Moningwunakauning)." The full-length piece blends traditional flamenco with Ojibwe storytelling to create a dramatic tale of loss and rescue driven by the percussive footwork and driving rhythms of both traditional art forms. Navajo writer Rhiana Yazzie created the text for the piece.

—Camille LeFevre

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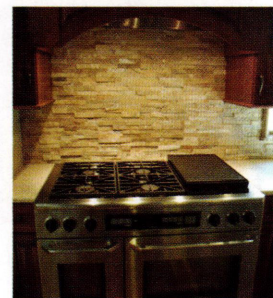
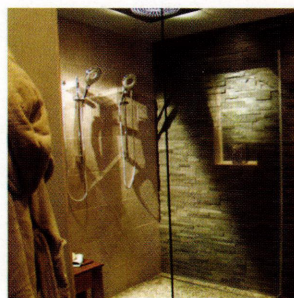
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CREATIVE DIRECTOR

Carleton College arts director Steve Richardson talks architecture, interdisciplinary learning, and community engagement at the school's new Weitz Center for Creativity

INTERVIEW BY AMY GOETZMAN

A college campus can be an island, with an invisible line dividing the school from the surrounding community. But that's not ideal. Students need to interact with the world they'll move into after college. And the students who are going to have an impact on the outside may already be forming their new ideas. So why not share them now, especially the wild, unexpected ideas that get people talking?

That act of sharing leads to collaboration, inspiration, and new ways of seeing and thinking, which is exactly how Steve Richardson, Carleton College's arts director, sees liberal arts education taking shape in the 21st century. Carleton's new Weitz Center for Creativity (page 26), an inspired reuse and expansion of a century-old middle school just off campus, is a different kind of fine arts building. It's not just a place to make art in; it's a place in which to see the way art touches every academic discipline and, indeed, every aspect of our lives. From the moment the college purchased the oft-remodeled school, the Carleton community began to explore how the building could be used to change the way people see the arts, which will ultimately change the way the arts—and other disciplines—are taught at Carleton. Yes, a building can do all that.

To make it work would take one more remodel, one that would look to the future, acknowledge the past, energize the school's way of teaching and thinking, and welcome the greater community inside. Richardson recently took time out to speak to *Architecture Minnesota* about the Weitz Center's first semester.

The arts are getting pushed aside everywhere in this economy. Yet at Carleton it sounds like they are being prioritized. Why?

I'll give you a two-part answer. First, I'd characterize what's happening here at Carleton as less a prioritization of the arts than an evolution in the way the arts are viewed. The Weitz Center is one of the outcomes of a long conversation we had at the college, a conversation that included faculty from all academic divisions of the school—economists, historians, language professors, and scientists, as well as the usual suspects from theater, dance, music, cinema, and media studies. That conversation envisioned the arts as being intimately connected with the intellectual life of the college—not just a sidebar, not just an extracurricular, but recognized as a vital component of a 21st-century education. Visual communication, communication through

performance, through images, through sound—these are tools we want our students to be able to use very powerfully.

The second part of my answer strays a little from the academic side of things to the outside world where, as you say, the arts are getting pushed aside. Institutions like ours are uniquely suited to become the next serious patrons of the arts. We can offer artists and arts organizations time to do their work, facilities to work in, a community of smart people to engage with as they make their work, and a degree of shelter from box-office pressure or the critics. Many other colleges and universities are also thinking along these lines, so I don't claim it as an original insight. But it's a great opportunity for all involved. I read somewhere a characterization of colleges as "the new Medicis." That's a little over-the-top, but it's a helpful metaphor.

>> continued on page 46



AIA Architects

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4RM+ULA

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Workspaces say a lot about us. Join us on a tour of architecture offices and design studios around the state, and you'll see architects and designers in a whole new light.

STUDIO

The art-inspired architecture firm 4RM+ULA feels right at home in a city neighborhood teeming with creativity

From left to right: 4RM+ULA principals Erick Goodlow, James Garrett Jr., AIA, and Nathan Johnson, AIA

We chose Lowertown to be close to visual artist Ta-Coumba Aiken and immerse ourselves in the creative, collaborative spirit of the neighborhood.

Favorite restaurants/cafes/hangouts in walking distance: Black Dog café and Tanpopo Noodle Shop

What activities have you hosted in your space? Three art crawls, two concerts, and countless Friday happy hours for local creatives to gather and "solve" the world's problems. Currently we're working on world peace.

Which past project taught you the most, and why? Every project is humbling and teaches us that there is always more to learn in this profession.

Favorite social-media tool or platform: We're avid Facebookers (visit our page and "like" us).

Least favorite buzzword: Capacity, as in "We just feel that 4RM+ULA, as creative and talented as it is, doesn't have the capacity to do this project." It's used against smaller, younger firms lacking large-firm experience.

How did you come up with your name? Form + Urban Landscape Articulation = Formula

Describe your studio space or culture in three words or less. Artful, technological, and green (literally and environmentally)

How does your location reflect or reinforce your values or interests as a firm?

Recent brush with celebrity: Coffee with Ta-Coumba Aiken, the Mayor of Lowertown

What efforts has your firm made to work with underserved individuals or communities? Our first client was the Selby Area Community Development Corporation, and over the years it's been our pleasure to serve a number of inner-city-based nonprofit organizations.

What's the greenest feature of your space? Our walls—they're painted a fern color with AFM Safecoat (zero-VOC paint).

How is your firm changing? Our practice is becoming more diverse as we enter into the realm of urban renewable-energy generation and also pursue work in the Latin American/Caribbean region.

Favorite Minnesota building not designed by your firm: St. Paul's Highland Park Water Tower, designed by James Garrett Jr.'s grandfather's godfather, Clarence "Cap" Wigington (the first African-American municipal architect in the U.S.)

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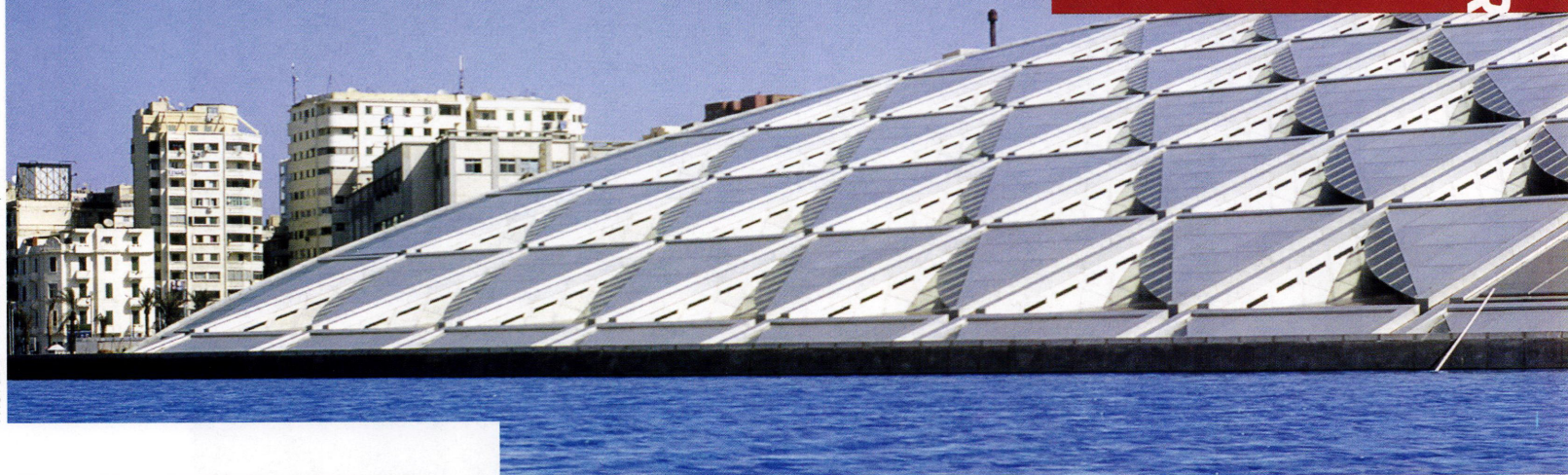
Rising Up

On the Mediterranean, the modern **Bibliotheca Alexandrina** evokes the grandeur of its ancient predecessor

In Wayfarer, architects and other design enthusiasts share their experiences of architectural environments around the world.

WAYFARER

PHOTOS BY WILLIAM ARMSTRONG, AIA



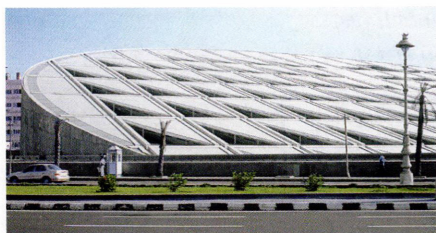
I ARRIVED AT THE PORT OF ALEXANDRIA, EGYPT, full of expectation, as I had long wanted to visit the ancient city and its modern library. A world landmark designed by Norwegian firm Snøhetta and completed in 2002, Bibliotheca Alexandrina commemorates the city's famed ancient library, whose exact location—and the location of its priceless contents—remains a mystery. But my anticipation quickly turned to anxiety when I reached the street. Vulturous taxi drivers fought for my fare, and the sidewalks were littered with rubble from the rundown buildings. The driver I chose aggressively pitched other tours to me as he dodged pedestrians and other vehicles on the crowded streets.

My anxiety began to lift when we took a turn that brought the Mediterranean back into view. With another turn I saw my destination. Located on

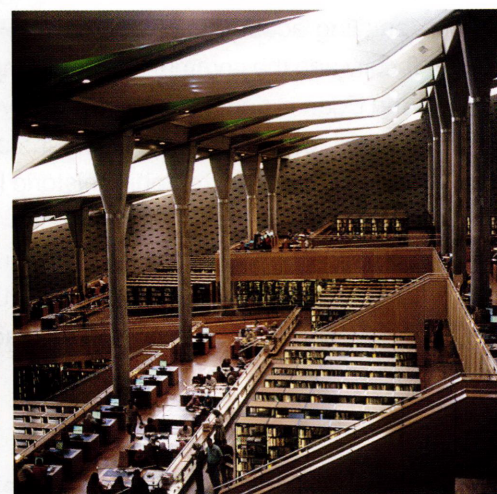
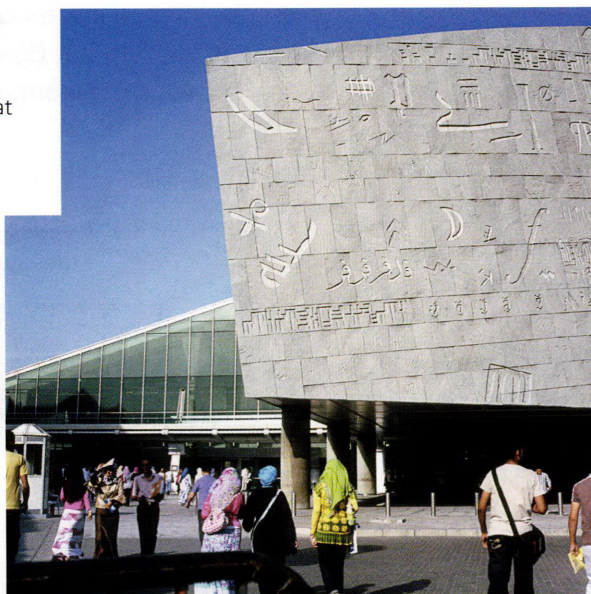
the Mediterranean shore, the library features a gigantic, sloped, disc-shaped roof that extends below a reflecting pool to create the illusion of the ancient library rising out of the sea. The roof's simple but powerful geometric pattern of skylights and panels evokes the computer chips and solar cells of our high-tech Information Age. The building's curved outer walls, made of gray Aswan granite, are carved with characters from 120 different scripts.

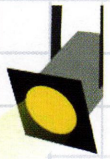
The interior boasts a spectacular main reading room, with 11 levels of stepped, terraced floors open to the grand central space. Skylights flood the interior with indirect natural light and provide readers on the upper levels with views of the sea. On the day of my visit, it seemed that every one of the reading room's approximately 2,000 carrels and computer stations was occupied by a student or scholar absorbed in his or her studies. The quiet intensity was powerful and inspiring—and a sharp contrast to the chaos of the streets at the port.

—William Armstrong, AIA



Beneath the library's sloped, disc-shaped roof (above) is one of the largest reading rooms (far right) in the world. Visitors pass beneath an exterior granite wall (near right) into which 120 different scripts are etched.





You don't get on a big stage like this,
by pretending.



It's not quite ready for prime time, the crowds haven't begun to gather, and the first performance isn't even booked yet, but work has started and Egan's electrical group is hitting the bright lights with their part in the \$80.8 million Northrop Auditorium renovation.

Originally built in 1929 as a massive performing arts venue, The Northrop is being re-purposed as a "bustling academic center of excellence for students, faculty and the community," according to U of M sources. And Egan is right in the middle of everything gutting the original, out dated equipment, installing critical electrical systems, and restoring historic light fixtures.

While in the past the 4,800-seat auditorium was used less than 50 days a year by The University, after the renovation it will house several academic departments

and have enough study space to double the amount of public study area on the campus. It will also have a 2,800 seat multi-purpose, state of the art concert hall.

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CENTERS

of Attraction

When's the last time you stepped onto the University of Minnesota's Twin Cities campus? How about the grounds of Carleton College in Northfield? For those of you who don't teach, work, or study at these schools, the respective answers might be, "I hit the Weisman last weekend" and "I saw a film at the Weitz Center for Creativity this week." That's no surprise; the fact that collegiate arts centers, with their engaging exhibition and performance spaces, are often the most public and heavily trafficked buildings on campus is entirely by design. Universities want to put their best foot forward when reaching out to the surrounding community through arts-related programming, so we get buildings as adventuresome as the newly expanded Weisman Art Museum (page 20), as inspiring as Carleton's Weitz Center (26), as breathtaking as Cal-State Northridge's Valley Performing Arts Center (30), and as light-filled as Inver Hills Community College's Fine Arts Building (36). Our humble recommendation is to read these articles from start to finish to whet your cultural appetite, then visit each venue's online events calendar.

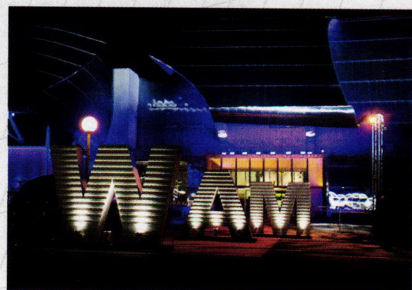
What's a plane ticket to LAX cost these days?

—CHRISTOPHER HUDSON

Return Engagement

THE UNIVERSITY OF MINNESOTA'S WEISMAN ART MUSEUM, GEHRY PARTNERS, AND LOCAL ARCHITECT JOHN COOK, FAIA, OF HGA ARCHITECTS AND ENGINEERS RETEAM TO GIVE THE MUSEUM ITS LONG-PLANNED-FOR AND MUCH-ANTICIPATED ADDITION

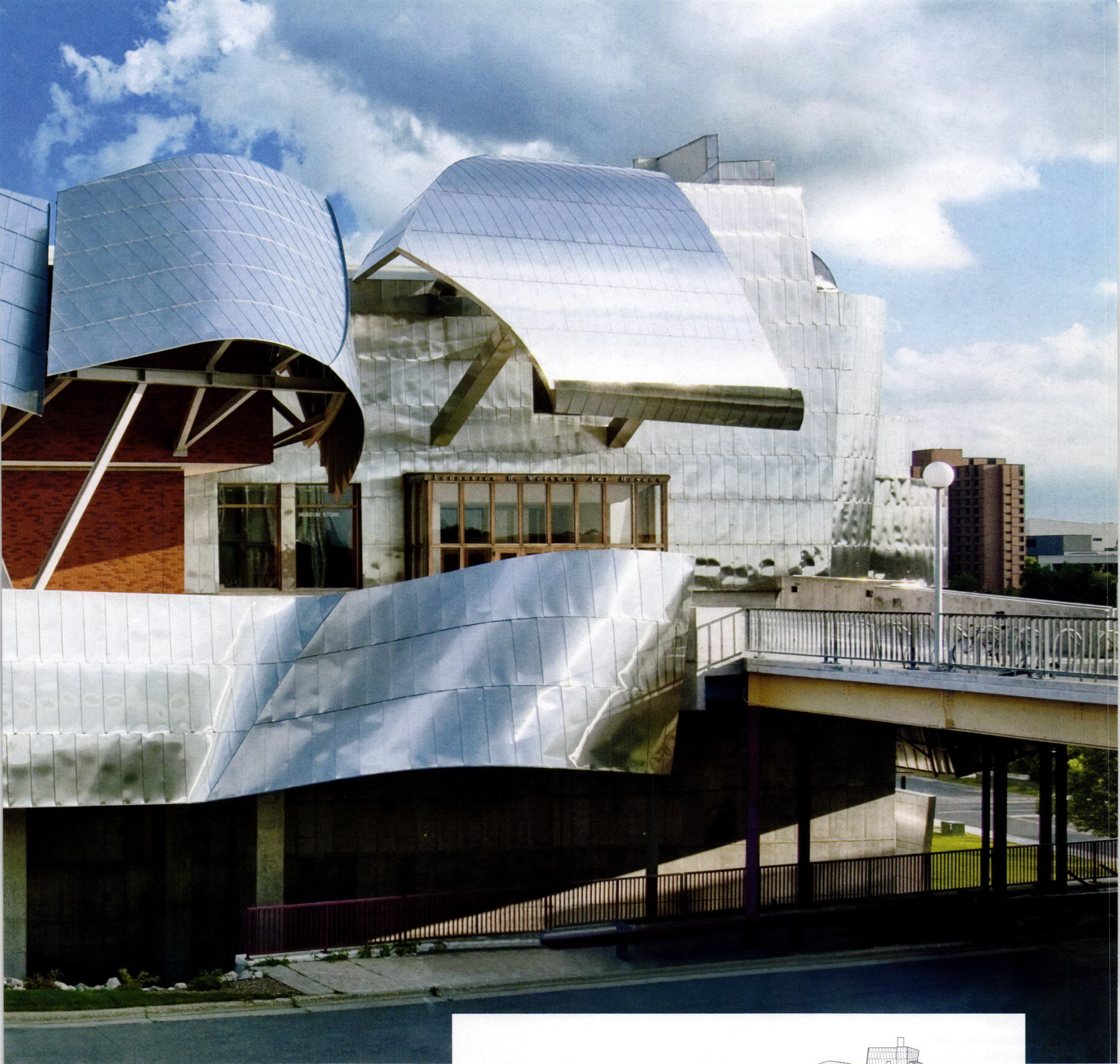
By Camille LeFevre



The opening-night gala in October was a high-flying affair with performers hanging from the rafters.

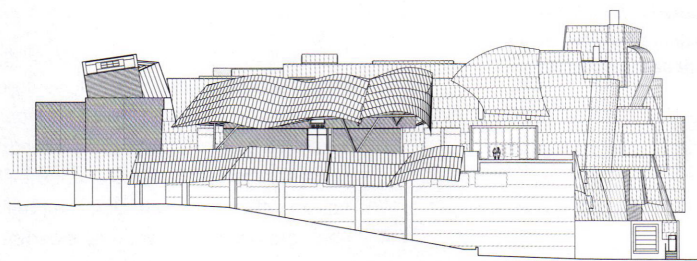
The crowd was abuzz. On a temperate October evening, as arts patrons hobnobbed beneath the Weisman Art Museum's wavy new entrance canopy, word spread that "Frank" had arrived. In 1993, the original 47,300-square-foot museum, designed by Frank Gehry, had opened to fanfare at the University of Minnesota, its dramatic west façade of abstract, steel-clad turrets, angles, towers, cylinders, and other curved forms glistening above the Mississippi River.

Now, 18 years later, a celebration of the Weisman's 8,100-square-foot expansion, also designed by Gehry, was under way. And yes, Frank was inside the museum, across from the new Target Studio for Creative Collaboration, accepting congratulations from the crowd. When a well-wisher commented that he must be immensely pleased with the fulfillment of his original vision for the museum (an addition was part of the building plan from the get-go), he beamed and said, "Of course."



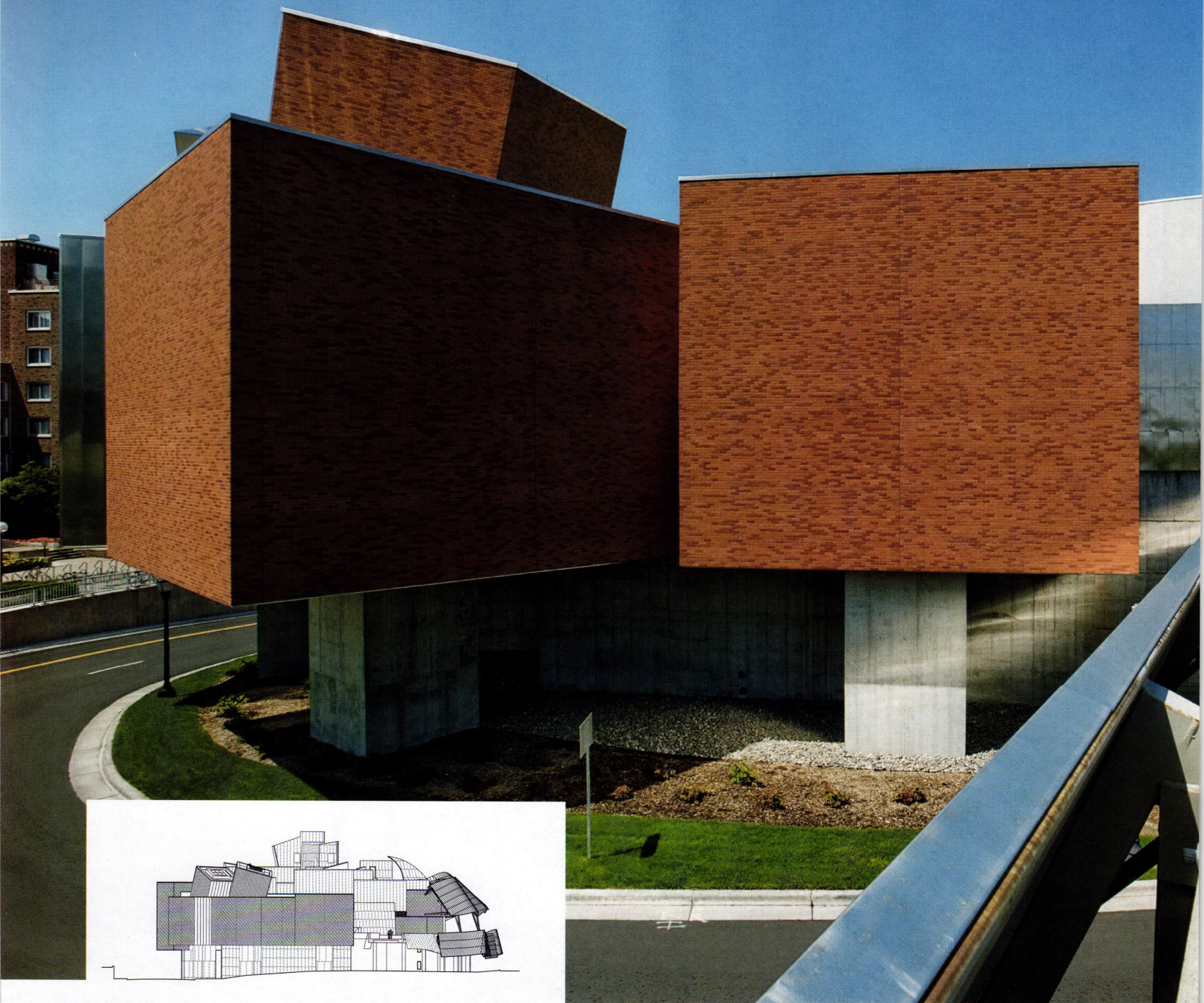
He then began talking about a possible next phase: a café overlooking the river. “We could redo that façade,” he offered. “Whenever Lyndel’s ready, we’re ready.”

Lyndel King, the Weisman’s director and chief curator, along with her staff, will no doubt wish to relish and fully engage the expanded museum before taking on another construction project. “We do have a sense of completing the vision we started about 20 years ago,” says King.



CHALLENGING SITE

The Weisman’s difficult site drops approximately 40 feet from the Washington Avenue bridge and Coffman Memorial Plaza to East River Road.



FLOATING BOXES

The new galleries are housed in brick boxes at the east end of the museum. Of course, in Gehry's hands, their arrangement defies expectation.

The sinuous metal canopy, which King calls the "one new, dramatic, stainless-steel move" in an expansion that's largely brick boxes, accents the new Target Studio. An education space for the teaching museum, the studio has an enticing catwalk along the ceiling perimeter that could showcase performance art, musicians, or installations.

The first Target Studio exhibit was composed of the drawings, models, and process boards submitted by the four finalists in the Plaza Design Competition (see sidebar on page 23). The plaza

being re-envisioned lies just outside the Target Studio window, bracketed by the Science Teaching & Student Services building to the north and Washington Avenue bridge to the west.

While the studio is clad in brick with a stainless-steel-panel canopy, the four new rectangular volumes on the east side of the building, which house the new galleries, are clad in the same brick that lined the old east façade. "The University of Minnesota is primarily a brick campus," King explains, "so we used brick on the east sides facing



RIK SFERRA, COURTESY OF WEISMAN ART MUSEUM

WEISMAN ART MUSEUM EXPANSION

Location: Minneapolis, Minnesota	Principal-in-charge: James Goblirsch, AIA
Client: Frederick R. Weisman Art Museum, University of Minnesota	Senior project architect: John Cook, FAIA
Design architect: Gehry Partners www.foga.com	Project architect: Robert Good, AIA
Design partner: Frank Gehry, FAIA	Energy modeling: HGA
Project designer: Edwin Chan	General contractor: J.E. Dunn Construction Company
Executive architect: HGA Architects and Engineers (HGA) www.hga.com	Size: 8,100 square feet
	Completion date: September 2011

RIK SFERRA, COURTESY OF WEISMAN ART MUSEUM



The Weisman's iconic west façade facing the Mississippi River went untouched, but the new Hodroff Gallery now sneaks into view.

"The U is primarily a brick campus, so we used brick on the east sides facing Coffman Union. But the brick is also a wonderful foil for the stainless steel."

—WEISMAN DIRECTOR LYNDEL KING

The new walkway between Coffman Memorial Plaza and the Washington Avenue bridge remained open during construction.

Coffman Union. But the brick is also a wonderful foil for the stainless steel."

Gehry also tilted and cantilevered the brick volumes over a new roadway. "The museum is really on an island surrounded by roads, which created many site challenges," says senior project architect John Cook, FAIA, of HGA Architects and Engineers. Cook also worked with Gehry, Gehry Partners designer Edwin Chan, and King on the original Weisman while with Meyer, Scherer & Rockcastle. "During the first phase, we created layout possibilities



PETER VONDELINDE

A Competitive Start

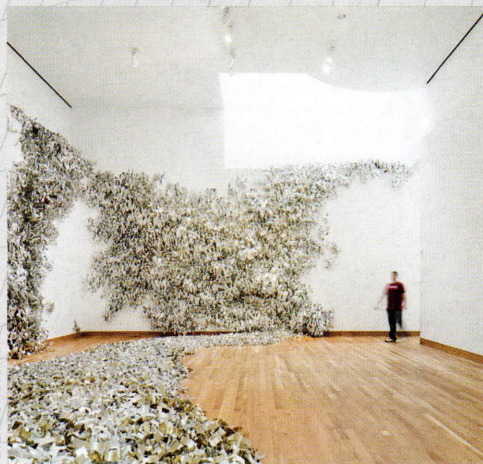
So what activities and exhibitions does the Weisman have in mind for its new Target Studio for Creative Collaboration? The first show—the results of a competition that charged four interdisciplinary teams with redesigning the bridgehead plaza outside the Weisman's main entry as a vibrant public space—gave a clear answer. The exhibition displayed the collaborative work of architects, landscape architects, artists, and engineers on tables and walls, flat screens and iPads. And it invited museum visitors to contribute their own ideas and drawings on sketch paper.

The subject matter, too, was a perfect fit for the studio, because the plaza in question lies just outside the gallery's large windows. In fact, one of the directives to the teams was to "connect [the plaza] to the [studio] and its programs through new media and other means." The iPad videos showing team discussions were a good start.

The teams, led by 4RM+ULA (page 15), Coen + Partners, VJAA (page 44), and SEH, respectively, made separate presentations to the jury and to the public on October 26. The following day, the jury announced the winner: the VJAA team, which included design-research collaborative HouMinn Practice and artist Diane Willow. For more on the competition and the winning entry, visit www.weisman.umn.edu.

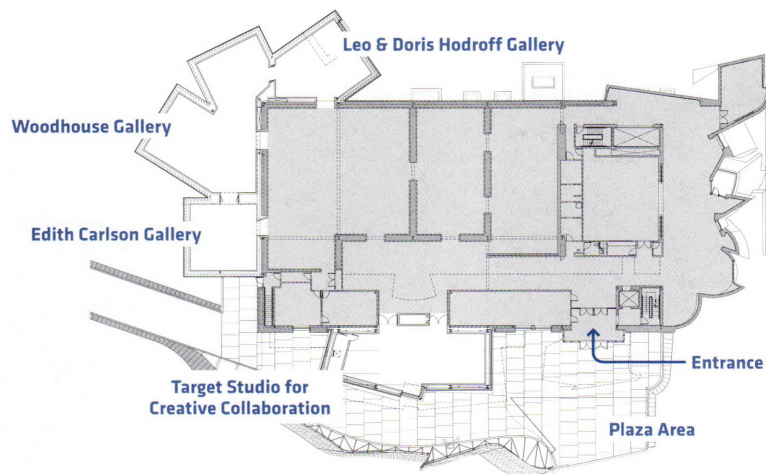


PETER VONDELINDE



PETER VONDELINDE

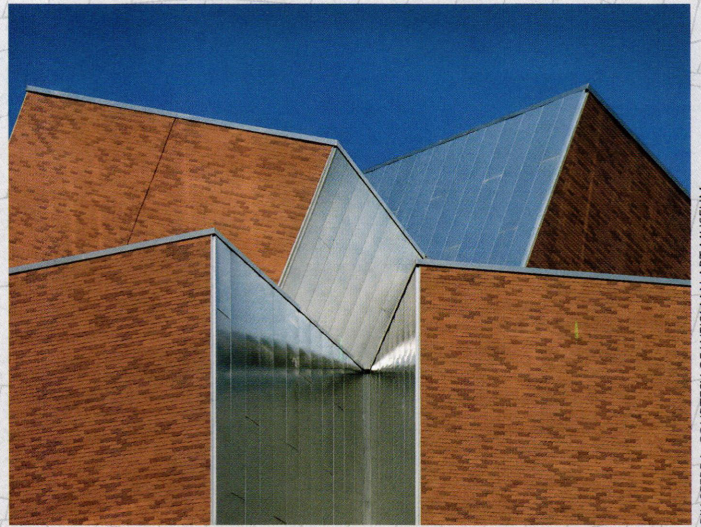
For the reopening, the Weisman commissioned a new work by Sharon Loudon for one of its existing galleries. Inspired by the museum's cladding and titled "Merge," the installation is composed of seemingly countless strips of aluminum flashing.



MAIN FLOOR

Existing spaces

Embedded in the Woodhouse Gallery's high ceilings are skylights that bathe the space in daylight regulated through fritted glass, mesh scrims, and shades.



RIK SFERRA, COURTESY OF WEISMAN ART MUSEUM



In the Woodhouse Gallery (above), sculpturally dynamic skylights accentuate the open feel. The adjacent Hodroff Gallery (right) brings light in through a large vertical window.



PETER VONDELINDE

for future expansion," says Cook. "This time we elevated the expansion space off the ground."

Spanning the interior of the new brick boxes is the expansive Woodhouse Gallery, where the Weisman now exhibits its long-stored collection of American art. Embedded in the high ceilings, where Gehry's abstract, cathedral-like roof forms are in full view, are skylights that bathe the gallery in daylight regulated through fritted glass, mesh scrims, and shades. The gallery is intimate enough to keep one's focus on the art, yet it also invites the viewer to gaze upward to appreciate Gehry's unique architectural vocabulary.

"People have said Frank's architecture competes with the art," notes King. "But we think Frank's created the best environment for looking at art. He accomplishes this through the volume of the rooms, the proportions of the space, the way he handles the skylights. He's created an emotional environment that lets the works of art do their best."

On the north end of the Woodhouse is the Edith Carlson Gallery. Here the lower ceiling and absence of skylights creates a defined space for exhibiting and viewing prints and drawings. Tucked next to the Carlson Gallery, the Weisman's singular collection of Korean furnishings and cultural

artifacts is displayed on curved risers. On the south side of the museum, the Hodroff Gallery (ceramics) beckons visitors with a large vertical window overlooking the river.

The new galleries at the east end flow seamlessly from one to the other, creating a new sense of balance in the museum's circulation, Cook point

>> continued on page 49

VIDEO FEATURE:
View a short film on the expanded Weisman at architecturemn.com



The 25,000-square-foot addition (above) announces itself as new, but its materials, scale, and massing are respectful of the existing historic building. The brick volume with the light scoop on top houses art galleries.





BY AMY GOETZMAN

Carleton College's new Weitz Center for Creativity redefines cross-training, inviting every academic discipline to interact with the arts

Inspiring Minds

Students don't need to leave the building after class. This lounge allows them to continue conversations or catch up on some work at the window bar overlooking the courtyard.

Perhaps we ask too little of our buildings. We need places to live and work and gather in, to shelter ourselves from the elements. But we could ask for something more. We could ask our buildings to inspire us.

When Carleton College decided to convert a neighboring historic middle school it had acquired into a home for its dispersed fine arts departments, the conversation quickly turned from mere shelter to wild inspiration. "The school envisioned collaborative, cross-disciplinary spaces, almost a workshop environment—and not just between the expected arts departments," says Meyer, Scherer & Rockcastle (MS&R) project manager Jeffrey Mandyck, AIA. "We asked, 'How can the building be our ally in establishing a truly creative environment?'"

The resulting Weitz Center for Creativity provides key work, performance, and teaching spaces, and it connects them with gathering areas where inspiration can spark. Classrooms, labs, galleries, and performance spaces invite the full range of learning about, making, and experiencing art. Different disciplines can collaborate and inspire one another, even ones that might not immediately seem to have an arts connection. It's a given, for example, that the drama department will work with visual artists to create theater sets here. But when a biology class comes to study visual representations and a political science class visits to study media, the purpose of a liberal arts education is truly fulfilled.

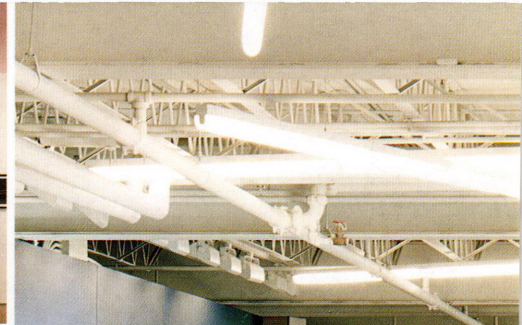
Part of the building's creative energy comes from a somewhat motley series of renovations. The original 1910 school had a 1934 Works Progress Administration expansion and a 1954 update. In more recent years, the building was altered to accommodate new mechanical and data systems. When MS&R assessed the building, the firm counted 13 different levels.

"Over the years, the clarity of the building had been diminished," says Mandyck. "We needed to introduce a continuity of wayfinding, visual cues to make it really clear how to move through the building and find resources. That meant making interventions to create intuitive circulation, a circular path or spiral that tied all these different parts of the old building, and all these different uses, together."

That in turn meant expanding the 104,000-square-foot building one more time. "The 25,000-square-foot addition acts as a generator," says Mandyck. "Add this on to the existing building, turn it on, and the rest of the building runs."

A clean, contemporary arrangement of glass, steel, and brick, the 2011 building, like the older additions, is wholly of its time. But the architects marveled over how forward-thinking parts of the

Large windows original to the historic building bring natural light into classrooms. "They had it right the first time," says MS&R architect Jeffrey Mandyck, AIA.



CARLETON COLLEGE WEITZ CENTER FOR CREATIVITY

Location:
Northfield, Minnesota

Client:
Carleton College

Architect:
Meyer, Scherer &
Rockcastle, Ltd. (MS&R)
www.msrltd.com

Principal-in-charge:
Thomas Meyer, FAIA

Project designer:
Tamer Azzazi

Project manager:
Jeffrey Mandyck, AIA

Energy modeling:
The Weidt Group
www.twgi.com

Landscape architect:
oslund.and.assoc.
www.osala.com

Construction manager:
McGough Companies

Size:
104,000-square-foot
renovation, 25,000-
square-foot expansion

Cost:
\$28 million
(construction)

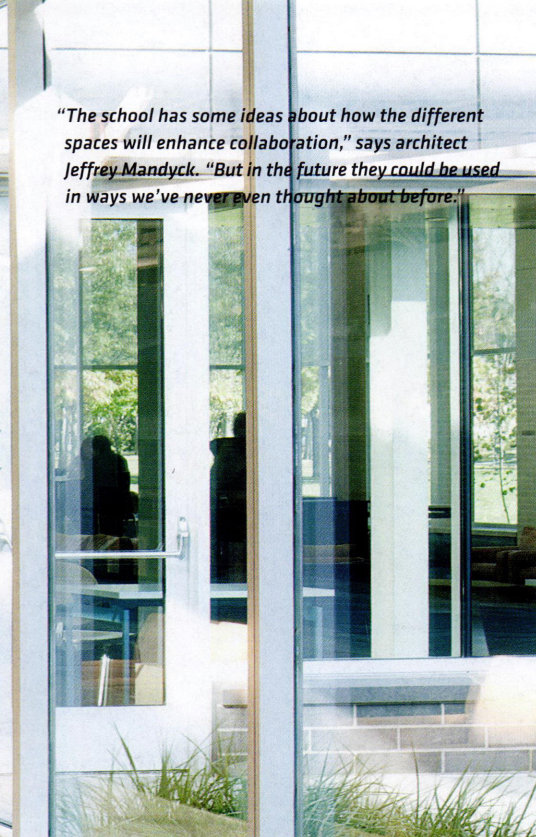
Completion date:
September 2011

Photographer:
Lara Swimmer





"The school has some ideas about how the different spaces will enhance collaboration," says architect Jeffrey Mandyck. "But in the future they could be used in ways we've never even thought about before."

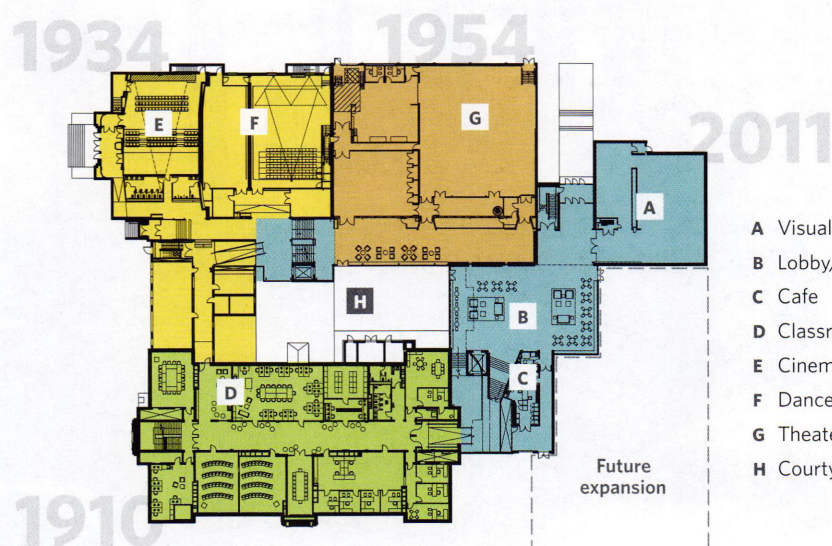


The building provides key work, performance, and teaching spaces, and it connects them with gathering areas where inspiration can spark.

well-constructed old building felt. Many of the original daylighting and orientation strategies, and even the heating and ventilation systems, helped MS&R put the project on track for LEED-Gold certification. Other inspired reuses lend additional warmth and authenticity to the interiors: The old gym bleachers now clad an elevator shaft, and pieces of wood seats from the old auditorium hang artfully above the cinema lobby.

At the building's public open house in September, Mandyck overheard Northfield residents reminiscing in every room. "The studio theater was once a gym. Many of the visitors knew that, and they were telling stories about the gym and what happened there," he says. The community was pleased to see the building reopened as such a welcoming space. Indeed, they've been streaming through the doors ever since for movies and other events.

"There's been a lot of talk about civic engagement with college buildings—not just at Carleton, but everywhere—and we took that very seriously," says Carleton arts director Steve Richardson (page 13). "We want Weitz to be a meeting place between the college and the community. We're inviting people to come in and share in the work that we're producing and bringing here." **AMN**



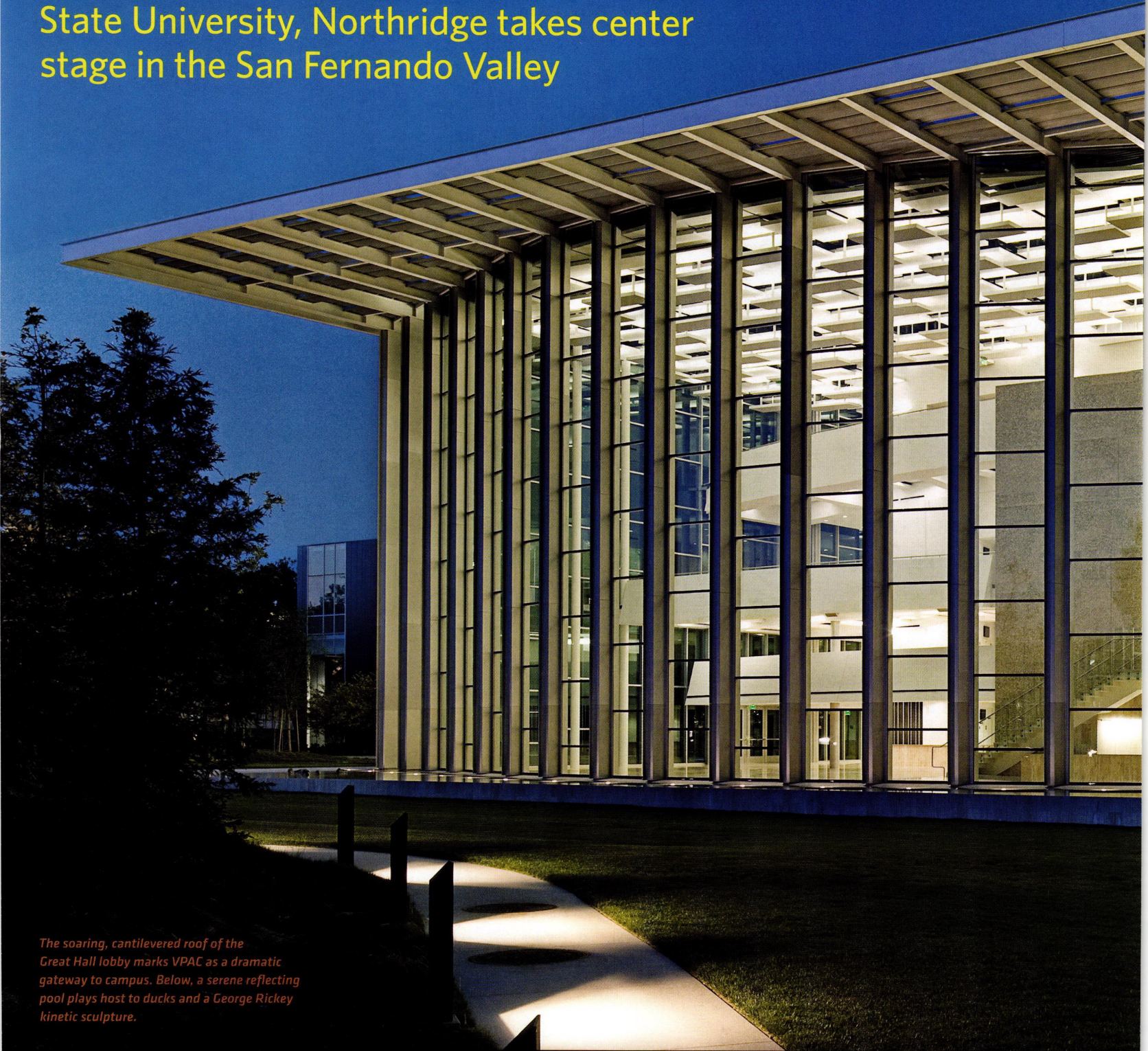
- A Visual arts galleries
- B Lobby/commons
- C Cafe
- D Classrooms
- E Cinema
- F Dance studios
- G Theater
- H Courtyard

MS&R tied the old and the new sections together with an easy-to-navigate circuit on the first floor.

COMMAND PERFORMANCE

BY PHILLIP GLENN KOSKI, AIA

A new performing arts center at California State University, Northridge takes center stage in the San Fernando Valley



The soaring, cantilevered roof of the Great Hall lobby marks VPAC as a dramatic gateway to campus. Below, a serene reflecting pool plays host to ducks and a George Rickey kinetic sculpture.

TOM BONNER PHOTOGRAPHY



A lot can change in a decade. In 2001, when Minneapolis-based HGA Architects and Engineers started design work on Cal State Northridge's Valley Performing Arts Center (VPAC), the campus was still recovering from the 1994 Northridge earthquake, the Frank Gehry-designed Disney Concert Hall was nearing completion, and sustainable design and LEED certification were considered niche (if not fringe) endeavors. Today, the university is fully rebuilt, and the San Fernando Valley has a stunning LEED-Gold performance venue to rival Gehry's landmark.

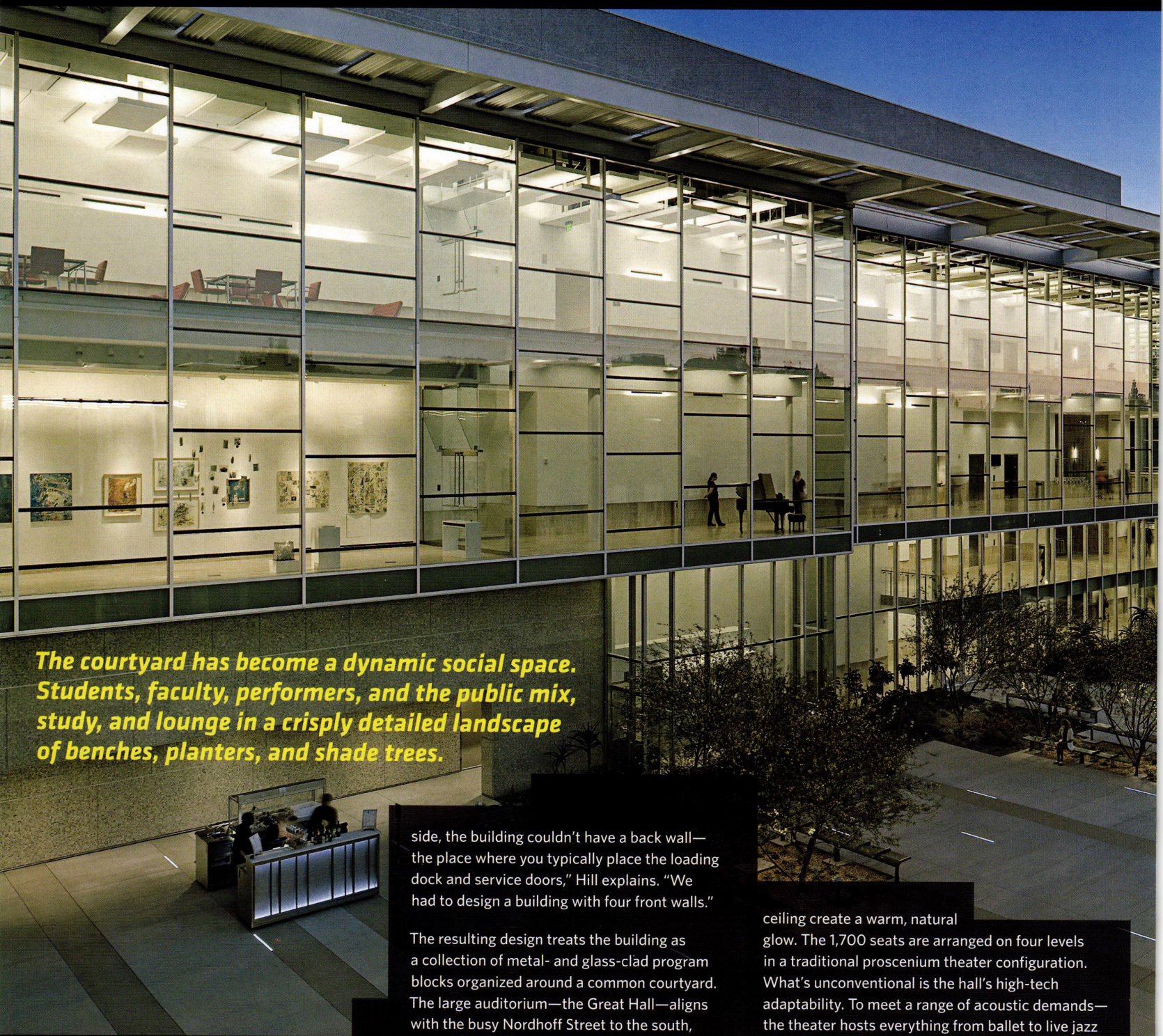
From the start, the school's planners envisioned VPAC as both a new gateway to the southern edge of campus and a premier stage for the Valley's 1.75 million culturally savvy residents. (The area is home to Universal, CBS, Disney, and Warner

Bros. studios.) Design architect Kara Hill recalls how, even in the early meetings, the school "wanted a signature building along the lines of Disney Hall, but one that represented the Valley community."

Creating an iconic design wasn't the only challenge the HGA team would face before the 166,000-square-foot building opened in January 2011. A second hurdle—convincing some on the client committee that sun-soaked Angelenos would embrace a cultural building not furnished with an underground garage—came as a surprise to architects hardened by Minnesota winters. Eventually, the design team and an ever-tightening budget persuaded doubters that a two-block walk from existing and future parking structures and transit stops might actually enhance the visitor experience. The approach from the east,

for example, now runs through an historic orange grove and past a series of ponds harmfully occupied by ducks, turtles, and other local fauna.

Another challenge lay in the fact that students and visitors would approach the building from all directions. "With people coming from every



The courtyard has become a dynamic social space. Students, faculty, performers, and the public mix, study, and lounge in a crisply detailed landscape of benches, planters, and shade trees.

In southern California's temperate climate, the courtyard does year-round duty as a pre- and post-performance gathering space.

side, the building couldn't have a back wall—the place where you typically place the loading dock and service doors,” Hill explains. “We had to design a building with four front walls.”

The resulting design treats the building as a collection of metal- and glass-clad program blocks organized around a common courtyard. The large auditorium—the Great Hall—aligns with the busy Nordhoff Street to the south, while a lecture hall, an experimental black-box theater, and the campus radio station (second floor) hug the northern edge of the site. Service areas are enclosed by movable screen walls on the east. The courtyard, enclosed on three sides, opens to the heart of campus to the west and north, adjoining a lushly forested landscape by Pamela Burton & Company. The lobby of the Great Hall soars above the treetops with a roof canopy that can easily be seen from the campus' main quad.

More drama lies inside the Great Hall, where rippling wood ribbons on the proscenium, sidewalls, and

ceiling create a warm, natural glow. The 1,700 seats are arranged on four levels in a traditional proscenium theater configuration. What's unconventional is the hall's high-tech adaptability. To meet a range of acoustic demands—the theater hosts everything from ballet to live jazz to movies—HGA worked closely with acousticians, theater consultants, and engineers to devise a system of acoustically absorbent panels that can be adjusted to achieve the desired level of reverberation. The panels are elegantly hidden behind stainless-steel-mesh screens.

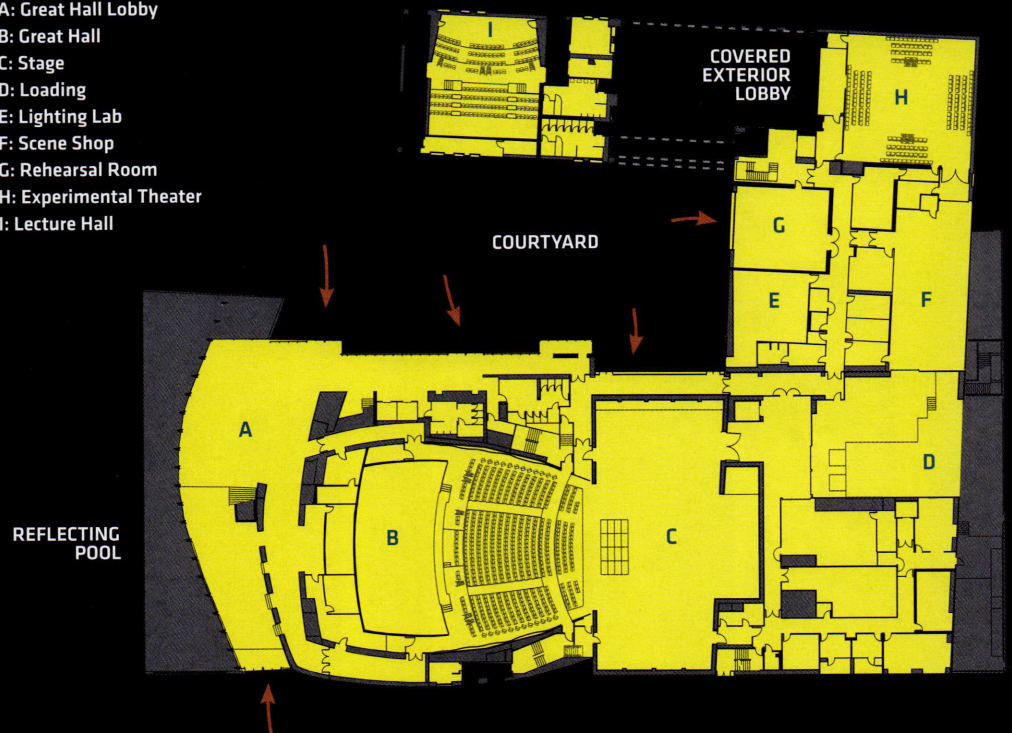
“It's a beautiful facility that's very serviceable,” says VPAC executive director William Robert Buckner, after a year of diverse and intensive programming. “After the curtain drops at 10:30 P.M. on a Saturday,

ALL PHOTOGRAPHY BY TOM BONNER PHOTOGRAPHY UNLESS NOTED
LOREN PETER AHLES, FAIA



A rehearsal room expands its theatrical reach into the courtyard by raising its bifold glass garage door.

- A: Great Hall Lobby
- B: Great Hall
- C: Stage
- D: Loading
- E: Lighting Lab
- F: Scene Shop
- G: Rehearsal Room
- H: Experimental Theater
- I: Lecture Hall



A U-shaped building surrounded by pedestrian channels required multiple access points.

"With people coming from every side, the building couldn't have a back wall—the place where you typically place the loading dock and service doors. We had to design a building with four front walls."

—Architect Kara Hill

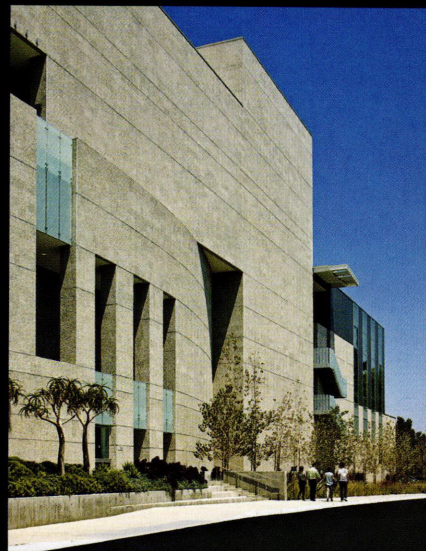


LOREN PETER AHLES; FAIA



we can reconfigure the space for just about anything else by 6 P.M. on Sunday."

Above: The loading dock and exit stair are as precisely proportioned and detailed as the main entry. Left: The Great Hall lobby takes flight with a travertine-marble staircase. Right: A gently sculpted street wall with deep window wells and terraced plantings enhances the pedestrian feel along busy Nordhoff Street.



ALL PHOTOGRAPHY BY TOM BONNER PHOTOGRAPHY UNLESS NOTED

Of course, VPAC isn't all about performance; it's an academic building and a meeting place, too. The theater department enjoys dedicated space for its curriculum—no surprise there—but the 250-seat lecture hall is open to all departments. And the courtyard has become a dynamic social space. Students, faculty, performers, and the public mix, study, and lounge in a crisply detailed landscape of benches, planters, and shade trees.

A large reflecting pool outside the Great Hall lobby features a George Rickey kinetic sculpture rescued from an earthquake-damaged corner of campus.

"The campus has these fountains, which are a nice relief in that hot, dry climate," says project architect Rebecca Krull Kraling, AIA. "Usually the head of physical plant management says no to water features because of the hassle, but here he actually helped us design the hydraulics." Perhaps most grateful for the new reflecting pool are a pair of mallards (aptly named Romeo and Juliet by romantic theater students) who come

from the orange grove "for a drink and a swim," as Bucker puts it.

In its first year, VPAC has been a smash hit. "The response from the public has been overwhelming elation," says Bucker. And that community includes a famous environmentalist or two. "It's an incredible structure," says actor Ed Begley Jr. "Sustainable materials were used to build it. Energy efficiency was built into it. It's good in every way."

And worth the wait. **AMN**



**VALLEY PERFORMING
ARTS CENTER AT
CALIFORNIA STATE
UNIVERSITY,
NORTHRIDGE**

Location:
Los Angeles, California

Client:
California State
University, Northridge

Firm of record:
HGA Architects
and Engineers
www.hga.com

Principal:
Gary Reetz, AIA

Design architect:
Kara Hill

Project manager:
Jamie Milne Rojek, AIA

Engineer:
HGA

Landscape architect:
Pamela Burton
& Company

General contractor:
C.W. Driver

Size:
165,000 square feet

Cost:
\$98 million

Completion date:
January 2011



Top: The interior of the Great Hall is lined with undulating acoustic wood panels. Above: The simple layout of the black-box space accommodates a range of theatrical uses.

To meet a range of acoustic demands—the theater hosts everything from ballet to live jazz to movies—HGA worked closely with acousticians, theater consultants, and engineers to devise a system of acoustically absorbent panels that can be adjusted to achieve the desired level of reverberation.

Inver Hills Community College's newly remodeled Fine Arts Building becomes the center of campus—and a beacon that draws the larger community to the school



The campus lacked a focal point. Now, thanks to a donor, a glassy clock tower beckons visitors to experience the art produced here.

Heart of the Hills

By Amy Goetzman

At most colleges, a walk across campus is like a tour of academic architecture through the decades. Different eras, materials, and designers collude (and sometimes collide) in environments that have grown as needed. But Inver Hills Community College is different. In the 1970s, a complete campus design was drawn up and—incredibly—built as planned. The result is a cohesive set of low-slung, brick and cedar-shake buildings, with just a couple of newcomers. But as the college settled into its community, it became clear that something was missing.

"There was no anchor or landmark building for the campus," says Scott Wende, AIA, principal with Lunning Wende Associates. "It's a beautifully scaled mall, but it lacked that one defining piece." As Wende's firm began to remodel the school's fine arts center, the opportunity materialized.

"The initial idea was to add a clock tower, sort of a classic centerpiece," he continues. In the final design, by Lunning Wende and Omaha-based Bahr Vermeer Haecker Architects, a two-story glass atrium—the Alexandra Klas Tower—is that

centerpiece. It connects the original building to new spaces and demonstrates a new commitment to daylighting, which now permeates the formerly dark building. Meanwhile, the clock has become an artistic representation of time in the form of cascading glass panels by Alexander Tylevich.

"We were trying to create a quality of public space that really has a dramatic flavor to it, something the college didn't have yet," says fellow principal Bob Lunning. "This building is the place the community gathers in, so it needed to be a beacon."

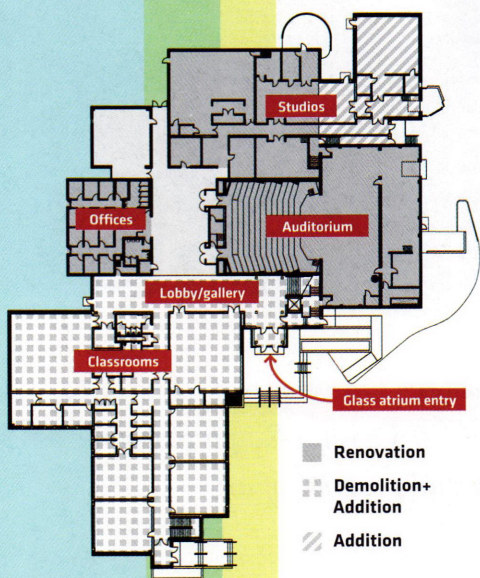
The remodeled Fine Arts Building is a compelling performance venue, attracting audiences to see music in its auditorium, shows in its black-box theater, and exhibitions in its gallery space. The tower links the original building to a new classroom building, which includes a striking multidimensional studio where young artists use power equipment to hew outsized sculptural visions.

"You have a sense, even when you're coming to see a production, that this is a place where art is made," says Lunning. "Some of that expression is in the structure itself; we didn't cover up everything about it. You get a sense of how the building is built. It's about making as well as presenting art."

A building designed to teach and share art also links the college to the community—especially at Inver Hills. "The community band rehearses in the building," Lunning reports. "People from the community come here to see art. The college has done a good job of cultivating those relationships; they take the 'community' part of their name to heart." **AMN**



The original 1980s building was nearly windowless. In contrast, the renovation and addition bring loads of natural light into studio and social spaces.



*A clock tower without a clock?
This glass sculpture by Alexander
Tylevich suggests the movement of
time instead of presenting numbers.*

INVER HILLS COMMUNITY COLLEGE CLASSROOM ADDITION AND FINE ARTS BUILDING RENOVATION

Location:

Inver Grove Heights,
Minnesota

Clients:

Inver Hills Community
College; Minnesota State
Colleges and Universities

Architects:

Lunning Wende
Associates; Bahr Vermeer
Haecker Architects
www.lunningwende.com
www.bvh.com

Principal-in-charge:

Scott Wende, AIA

Project lead designers:

George Haecker, AIA;
Robert Lunning

Landscape architect:

Sanders Wacker Bergly, Inc.

Construction manager:

Stahl Construction
Company

Size:

60,000 square feet

Cost:

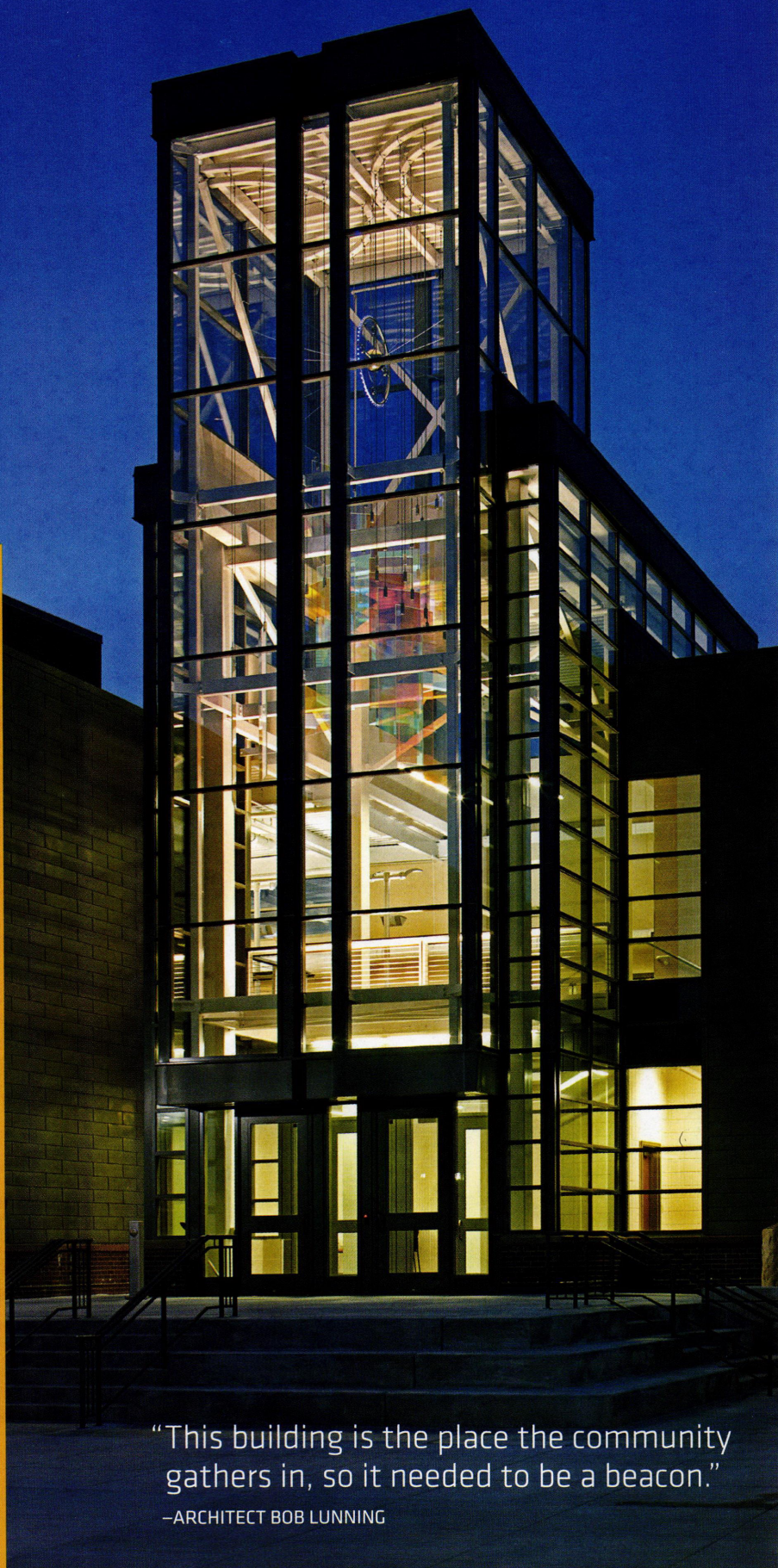
\$11 million

Completion date:

January 2010

Photographer:

Steve Bergerson



"This building is the place the community
gathers in, so it needed to be a beacon."

—ARCHITECT BOB LUNNING

Humanities and Fine Arts Building

TIME
TESTED

The environmentally and architecturally progressive University of Minnesota, Morris, took its first step into modern design in 1973 with a Ralph Rapson–designed building that sheds light on the study and practice of art

By Bill Beyer, FAIA



MIKE CIOK, UNIVERSITY OF MINNESOTA, MORRIS



An art gallery with this much natural light is bound to put a smile on a student's face.

1960

The U opens a liberal arts college in Morris on the campus of an agriculture school.

1973

The Humanities and Fine Arts Building is completed, giving the campus a modern landmark.

2005

The Humanities and Fine Arts building receives AIA Minnesota's prestigious 25-Year Award.

2010

The campus nears carbon neutrality with the aid of wind and biomass energy.



COURTESY OF RAPSON ARCHITECTS

The University of Minnesota established a new liberal arts campus in Morris in 1960. Modernist architect Ralph Rapson's Humanities and Fine Arts building arrived in 1973 with a notable impact, by far the largest building on the tiny campus of 1,800 students.

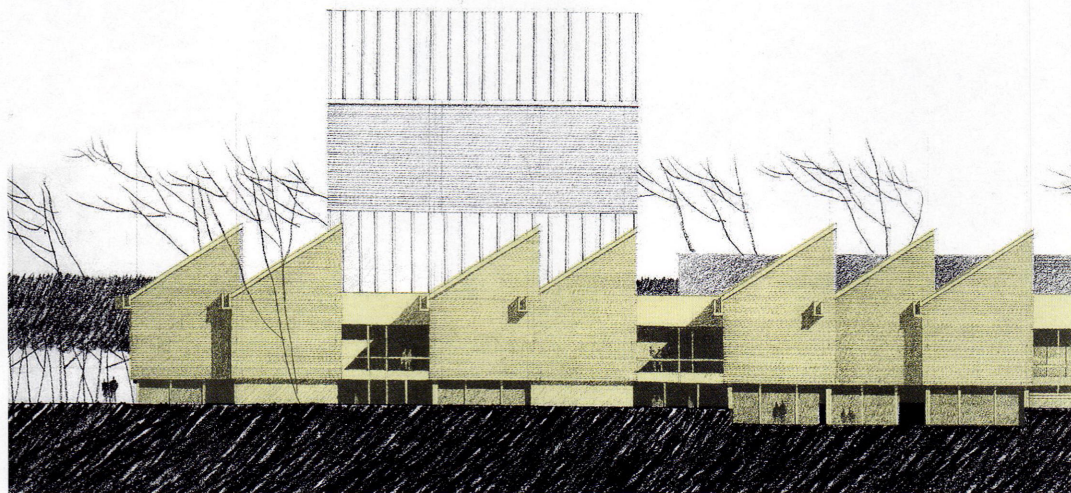
The building—home for the theater, studio art, communication media and rhetoric, music, and dance departments—was designed to be constructed in phases. Major program spaces were arranged along a wide internal circulation spine above faculty offices, classrooms, and media studios, extending north from the campus mall. Flanking the spine were reverse-thrust proscenium and black-box theaters; studios for painting, sculpture, and printmaking; a music recital hall with adjacent rehearsal spaces; and a gallery for display of visual art. A final-phase, 1,200-seat performance hall capping the north end remains unrealized.

Rapson employed a limited and muted palette of building materials—exterior face brick matching the campus standard and standing-seam metal roofing, unpainted interior cinderblock walls, white plaster ceilings, plain concrete floors waxed and buffed to an impossible glow, and copious glass in black, narrow-profile, hollow metal frames. Painted exposed ductwork and exterior doors plus students and their art provided the color in this low-maintenance workhorse of a building.

But stealing the show and carrying the material melody were floods of natural light introduced through heroically scaled, north-facing clerestory windows, infusing rehearsal hall, classroom, studio, and gallery. Rapson's signature shed-roofed light scoops—dubbed “honkers” by architecture students of the day—brought the light in while creating an iconic, sharply serrated roofline.

Architecture Minnesota spoke with several professors of theater, music, and art at Morris; some have taught there for more than three decades, and they consider their own teaching spaces among the best they've seen anywhere. They invariably praised the natural light, invited in by Rapson to sing, dance, paint, sculpt, and entertain while informing the process of learning. That delightful performance starts anew each day. **AMN**

Rapson's signature shed-roofed light scoops—dubbed “honkers” by architecture students of the day—brought the light in while creating an iconic, sharply serrated roofline.



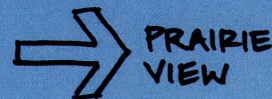
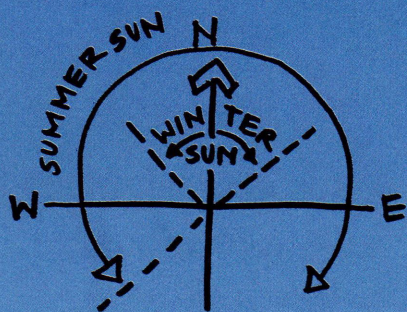
COURTESY OF RAPSON ARCHITECTS

PASSIVE ^{IS} PROGRESSIVE

BY MARY GUZOWSKI

Minnesota architects design with sunlight, wind, and climate. It's called passive design, and it's coming to forward-looking cities, neighborhoods, and campuses near you.

Perhaps you've heard of it but not experienced it yourself—at least not knowingly. Or maybe you've read that Minnesota winters are too extreme for it to work. Passive design—elemental design solutions for heating, cooling, ventilating, and lighting a building through non-mechanical means—is still the exception rather than the norm, even in residential architecture, the scale at which passive design is most easily achieved. But interviews with four Minnesota architects reveal that the movement is taking hold in our region, and that the harvesting of free energy from the sun and wind can lead to beautiful and meaningful architecture. Whether they're striving for rigorous Passivhaus standards or just “commonsense” passive solutions, these architects remind us that the benefits of passive design go far beyond energy reduction to influence how we live and connect with our built and natural environments.



30' BLUFF



The Spear House

DANI WERNER



As a pioneer in zero- and low-energy architecture, **Sarah Nettleton, AIA**, is enthusiastic about the potential of passive design in Minnesota. "Passive is a mindset and an opportunity," she explains.

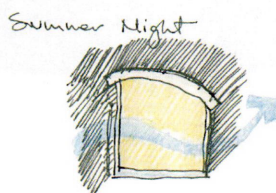
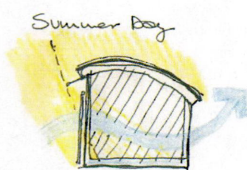
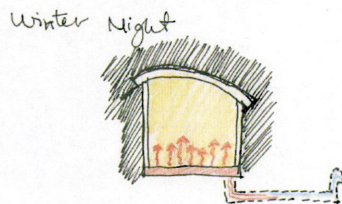
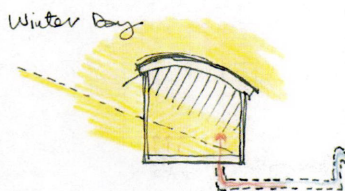
"It's about how we live

and the choices we make—choices about when to open a window or turn on the air-conditioning or furnace." On this point, she says, the term *passive* is a misnomer. "A 'passive house' is actually an 'active house' where you're going to open and shut the house; it's the opposite of passive," she says. "I call it 'participatory green,' which involves the user."

Nettleton takes interested clients to houses that use passive strategies, shows them options, and explains that participatory green works best when the owners' expectations and personal preferences are aligned with the lifestyle demands of passive. "In the U.S., we have specific expectations around comfort," she says. "There's a behavioral part to passive. Some clients like natural ventilation, for example, while others don't. I don't argue about it with clients. Passive is for homeowners who are motivated to be an active part of a larger solution."

Case in point: The owners of the Spear House, a recently completed Nettleton project in

>> continued on page 51



The master bedroom enjoys plentiful winter sunlight and a generous view of the river year-round thanks to the tilted curved roof.

The LEED-Gold Spear House in St. Peter, Minnesota, pursued a number of passive and related strategies. For more on the project, visit www.sarahnettleton.com.

- The house is sited to optimize passive solar gain in winter, natural ventilation and shading during summer, and daylighting throughout the year.
- The active solar thermal array provides in-floor radiant heating. Three 250-gallon tanks are used for thermal storage.
- An electric boiler provides backup heating for the passive and active solar systems.
- A high-velocity energy recovery ventilator (ERV) controls air quality and reduces energy use.
- In-ground tubes are used to temper ventilation air and reduce energy consumption.
- A dual mini-split air-conditioner was added in response to peak summer cooling needs. Even in extreme summer conditions, the house needs to be air-conditioned only between 6:00 and 8:30 P.M.
- Daylighting is provided throughout the day and year. Windows are located to provide daylighting, natural ventilation, and views from multiple orientations.
- Natural cross-ventilation is the primary means of cooling during summer.
- Roof overhangs are designed to minimize heat gain and control direct solar gain in summer.
- Glazing has a high solar-heat-gain coefficient (SHGC).



PHOTOGRAPH BY DON WONG

Bagley Classroom

Acclaimed architect **David Salmela, FAIA**, is attuned to the ways that passive design can enhance our aesthetic experiences. "Passive design is about more than using the sun to warm your dwelling; it's also about light and connecting you to what lies beyond the windows and walls," he says. "Our attitude is affected by light. Light is integral to comfort, and I feel that the sun provides the most comfortable level of light. Sunlight and visual connection with the outdoors are appealing and relieve the eyes." For these reasons, his design process always starts with the sun and the site: "The first thing I ask when I get a new project and visit the site

is: What's the sun pattern? Where's the sun? The sun is the essential thing."

This approach is beautifully illustrated by the award-winning classroom building Salmela designed for Bagley Nature Area, a



TIA SALMELA KEBOUNPHENG

55-acre preserve on the campus of the University of Minnesota, Duluth. The 2,000-square-foot building, nestled into a hilltop clearing above a pond, combines active (photovoltaics) and passive solar features to meet the school's lofty energy goals for the project. "We wanted to connect the building and its occupants with the land through generous glazing, and it was the glass element that led us to strive for higher energy performance," Salmela explains. "Because of our cold winter climate, we delved into the German Passivhaus system. For example, we sited the building for south light, made the sunshades smaller to get more sun inside in winter, and did meticulous calculations for Passivhaus and LEED."

But Salmela, like Nettleton, emphasizes that neither Passivhaus nor LEED offers a comprehensive path to exceptional passive design. "The Passivhaus system actually has a flaw: it's only about saving energy," he says. "The LEED system addresses many things that Passivhaus doesn't, but LEED has a weakness in addressing the energy needed to maintain the building. We achieved LEED-Platinum certification and designed to meet Passivhaus criteria [certification is pending]. But we weren't aiming for the labels; we were trying to do great architecture."

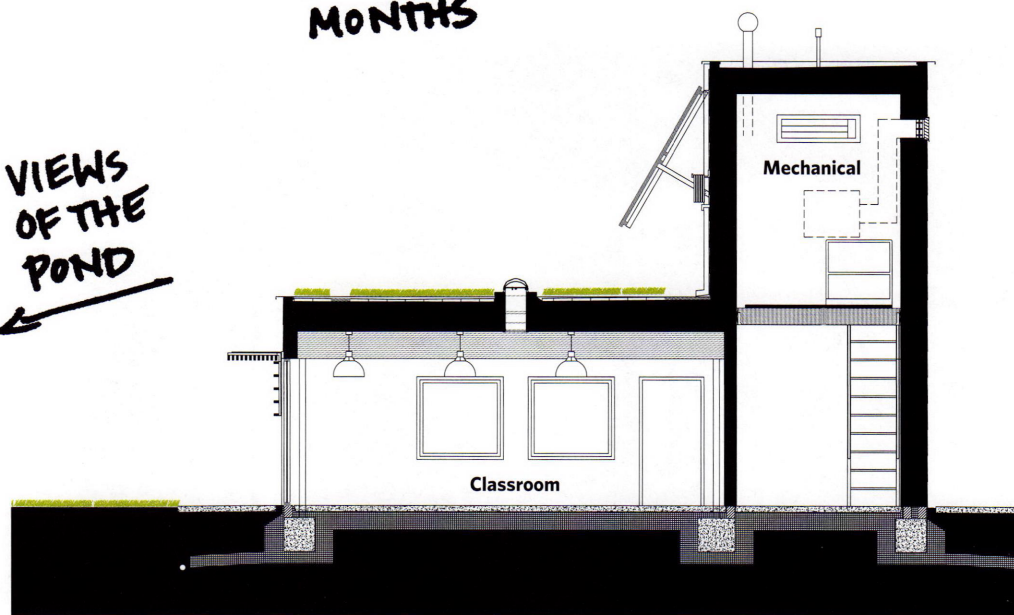
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"The first thing I ask when I get a new project and visit the site is: What's the sun pattern? Where's the sun? The sun is the essential thing."

**SITED FOR
SOUTH LIGHT
DURING WINTER
MONTHS**

**VIEWS
OF THE
POND**



This super-insulated, virtually airtight building is heated primarily by passive solar heat gain from the south and internal heat gains from equipment and occupants.



The University of Minnesota, Duluth's LEED-Platinum Bagley Classroom Building was designed to meet Passivhaus criteria. Visit salmelaarchitect.com for more info.

- The building is oriented to harvest sun for heating and wind for cooling and to use surrounding deciduous trees for summer shading.
- Large south-facing windows maximize direct solar gain in winter. The north façade has minimal openings and is well insulated.
- Vertical shades that double as bird screens are designed to prevent summer heat gain on the south, east, and west façades.
- Operable windows oriented to the east and west provide cross-ventilation. Stack ventilation is achieved by combining high ventilation louvers with low operable windows.
- All habitable rooms are daylit to minimize the need for electric lighting during the day and throughout the year.
- Solar tubes bring daylight to the middle of the room. Motion sensors and photocells control interior and exterior electric lighting.
- The building is designed to produce more energy than it uses. Energy consumption, estimated at 5,500 kWh per year, is 10 percent of that of a comparably sized building of standard construction. The grid-connected, south-facing photovoltaic panels are projected to produce between 7,500 and 8,500 kWh per year.
- The primary source of winter heating is direct solar gain from south-facing windows. An electric boiler with in-floor radiant heating is the backup heating

system. An electric heat coil in the ventilation system provides supplementary heat.

- A heat-recovery ventilation (HRV) system distributes fresh air evenly within the building and recovers 85 percent of the heat before venting the air.
- Energy demand is reduced with high-R-value continuous insulation, high-performance windows, and airtight building construction.

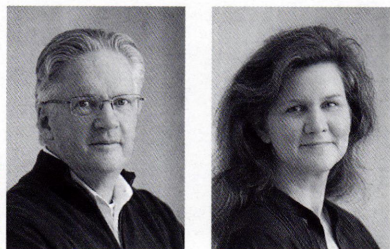
- The building is all-electric, using no natural gas, oil, or wood.
- The vegetative roof provides additional habitat and keeps the building and surrounding area cool.



PHOTOGRAPHY BY PAUL CROSBY



T42 House

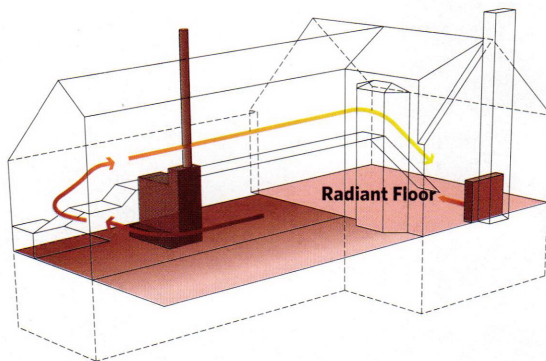


PAUL CROSBY

"The first step in design is recognizing that design is always on some level contextual," say architects Vincent James, FAIA, and Jennifer Yoos, AIA, of VJAA. "It's exciting once you see building that way—in terms of climate, microclimate, and more universal forces such as culture. We look at a region and consider how people lived comfortably before [mechanical] conditioning." For Yoos and James, passive strategies such as daylighting, natural ventilation, direct solar gain, and shading are simply part of a larger conversation about design excellence. "The first question we ask is: What's an effective passive response to the project's climate? We might also talk about the aesthetic or sensory effects of natural ventilation or daylight."

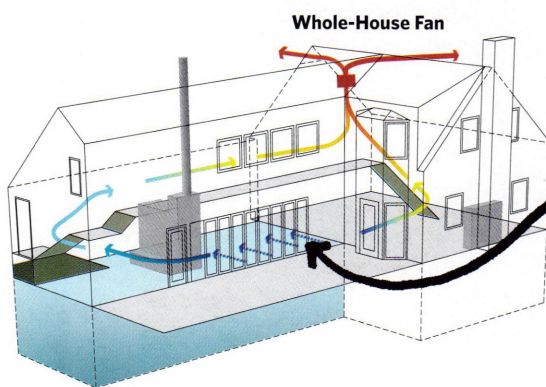
After working with leading energy and thermal consultants from Germany and other parts of the world, the two architects have gained insight into the distinctions between European and U.S. approaches to passive design and thermal comfort. "Environmental consultants in Europe emphasize passive strategies and tend to be a bit more holistic in their approach," notes Yoos. "Here in the U.S., we see more design emphasis on LEED and checklists. European standards for thermal comfort vary by activity type, with temperature levels based on an understanding of how people behave in different spaces. While passive approaches may encourage design simplicity, there's also an understanding of the complexity of human behavior."

Yoos and James explain that, while they use design guidelines such as LEED and the Passivhaus standard, good design must also integrate pragmatic and poetic considerations. "Some aspects of design are subjective—even how much glass is needed. You can't answer that just quantitatively," says Yoos. "It's about the quality of space, which includes the balance of light and connection to nature. How to connect to the landscape and be energy efficient? All of these subjective aspects have an impact."



WINTER MODE: RADIANT SURFACES AND CONVECTION LOOP

**BLOCKS
NORTHEAST
WINTER WINDS**



SUMMER MODE: VENTILATION

**SOUTHWEST
SUMMER
BREEZES**

VJAA's T42 House in the Twin Cities beautifully and seamlessly integrates passive and related strategies. Go to vjaa.com for more info.

- The addition is oriented and sited to optimize for passive solar heating, daylighting, and natural ventilation.
- Direct-gain passive heating is a significant source of heat. South glazing is sized at 12 percent of the floor area to optimize direct solar gain in winter (the total west, east, and north glazing area is less than 12 percent).
- Daylighting strategies (including a shallow floor plan), windows in multiple orientations, increased glazing in task areas, and a skylight are used to reduce electric lighting and cooling loads.
- Operable windows for cross-ventilation and an operable skylight that creates a stack effect
- In combination with low windows at the air source provide passive cooling. Room fans and a whole-house fan in the existing pressurized attic that exhausts hot air at night provide supplemental cooling.
- A shading canopy/green wall along the south and west walls and deciduous trees to the east and west provide shading.
- The brick floor and masonry heater provide thermal mass close to south window openings.
- High-transmission glazing with a high solar-heat-gain coefficient (SHGC) is used on the south wall. Energy-efficient triple glazing with krypton gas is used on the north and west.

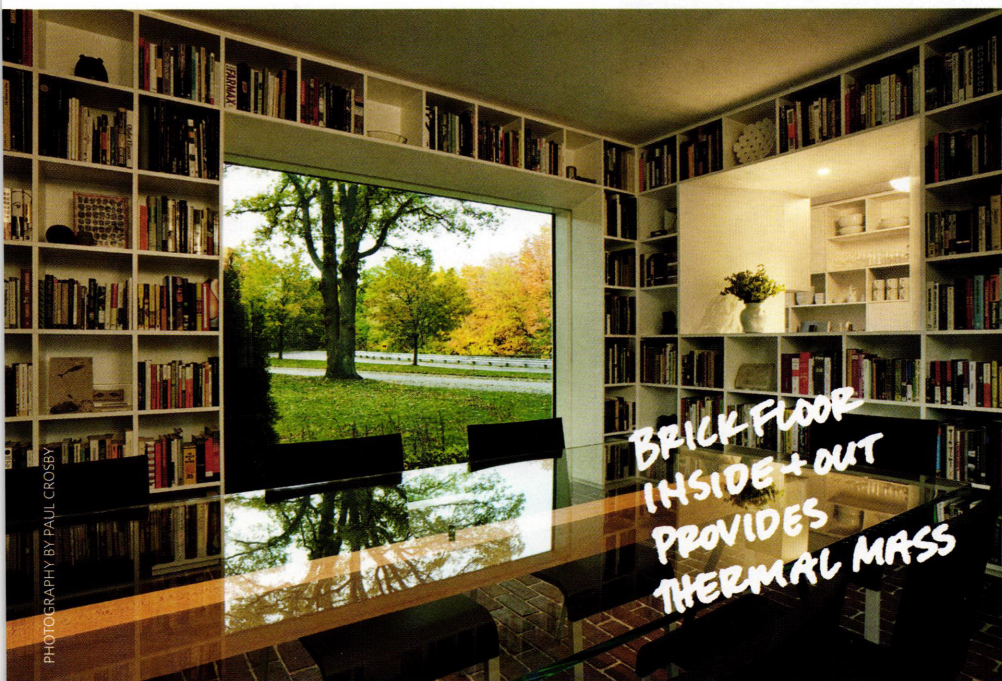


For more on passive design, visit the sites below.

Passivhaus Institut, Germany
www.passiv.de

Passive House Institute, U.S.
www.passivehouse.us

U.S. Green Building Council/LEED
www.usgbc.org



The 980-square-foot addition, which contains a dining area/library (bottom), reorients the house to capture winter sun and summer breezes from the southwest (top).

- A high-performance, super-insulated envelope minimizes heat loss.
- Black exterior surfaces increase solar performance in winter and are shaded in summer by adjacent trees. White interior walls and ceilings optimize daylight.
- High-performance mechanical systems include an efficient gas furnace for backup heating, a circulating fan for air distribution, radiant heating in the lower level, and thermal zoning.
- The addition is designed to accommodate future energy installations, including a solar-electricity photovoltaic panel, a ground-to-air heat exchanger with heat-recovery ventilation, and active solar thermal for domestic hot water and radiant in-floor heating.

Yoos and James explain that, while they use design guidelines such as LEED and the Passivhaus standard, good design must also integrate pragmatic and poetic considerations.

VJAA integrated passive and high-performance strategies in a recently completed residential addition in the Twin Cities. “The T42 House adapted the mass-produced 1939 Cape Cod kit-house to be a climate-specific response for Minnesota,” says Yoos. “We used the Passivhaus criteria for glazing area, thermal mass, and insulation. We also included a large masonry wall heater and a whole-house fan to further respond to sun, wind, and light. On a mild, sunny winter day, the occupants don’t need the heater; they have a lot of solar heat. On an overcast day, they use the space differently and rely on the masonry heater. On a cold overcast day, two small fires can heat the house. We also installed radiant tubing in the floor for future solar thermal collectors, but we can see now that they won’t be needed.”

But passive design and related materials should produce more than just exceptional energy savings, say Yoos and James; they should also yield enhanced sense and spatial experiences for the occupants. “In the T42 House, we created more openings in the existing walls and used the central circulation and a new back stair to create a convection loop for air movement,” says Yoos. “The occupants can feel warm air moving just through convection.” Passive strategies also allow the owners to more meaningfully engage their surroundings and the seasons. “The house makes the occupants more connected to everything,” Yoos continues. “They feel the movement of cool air exhausting on summer nights; they walk on the warmed brick pavers in winter. The masonry heater holds radiant heat for 24 to 36 hours after it’s been used. It’s amazing how the house affects the day-to-day lives of the occupants. It’s like a living organism.”

VJAA’s advice to clients and architects is to consider how passive strategies help solve

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Creative Director

<< continued from page 13

How does the space foster interdisciplinary activities?

The more-or-less official expression of our desire to foster interdisciplinary activities is seen in the "white spaces"—empty rooms that can be reserved by faculty or students for any kind of project that might be proposed. Small art exhibitions related to a class, for example. Multimedia installations.

Beyond that, working with MS&R, we made every space in the building as flexible as possible. Virtually every space can accommodate a performance, art exhibit, class, or meeting. And the whole aesthetic is non-precious—we wanted a workshop-like feel to the building, not a lot of fancy finishes. We want people to feel like it's a building where they can do their work, screw things up, and fix it back up with a minimum of hassle.

We also built a lot of extra offices in the building, many more than are needed for arts faculty. And we populated them by asking non-arts faculty to apply for residency in the building, based on their desire to partner with arts faculty, or use the facilities in a certain way, or explore new ways of teaching. I think we stacked the deck as well as we could to foster collaborations.

What's the most novel or unexpected usage of the space you've seen so far?

It's a little too early in the game to have a good answer to that. Lots of good ideas are making their way into production. I think one of the early indicators of the success of the Weitz Center, though, is that students are sleeping on every couch. It's great to see the building become an immediately useful and comfortable place.

Tell me a bit about the relationship this college has to the Northfield community, and how this building facilitates that.

Carleton has always welcomed community members to its performances and events. In fact, all of our events are free and open to the public. But with the old collection of arts facilities, it was a little difficult, and actually a little intimidating, for neighbors to attend events. We took care in the design process for the Weitz Center to make sure that people would feel welcome walking into the building, whether they're from the college or not. And we paid additional attention to directing the flow of traffic around the building, and to making it easy to figure out where an event is taking place. Sounds kind of simple, but basic house-

>> continued on page 48



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Creative Director

<< continued from page 46

management systems were not on our radar in the old facilities. A little care taken along these lines goes a long way.

Does moving such important functions essentially off campus signal Carleton's intention to continue to expand outward?

No, not at all. Honestly, the college acquired the property because it was a desirable piece of real estate immediately adjacent to the existing campus at a reasonable price. The arts planning process was coming to a head at about the same time. Serendipity. No expansion plans here.

This building holds a lot of community memories. How did the college respect or preserve that while moving into its own future?

It's true. Everyone in Northfield either went to school in this building or sent their kids here. Going down the adaptive reuse path not only helped us keep that sense of history and community embedded in the facility; it also resulted in unexpected touches that make for a very stimulating, creative environment, which is what we were after. MS&R did a great job choosing what to keep (the old wood trim, the slate blackboards, great old dental molding in some of the rooms) and also what to repurpose (the old gym bleachers turned into paneling around the elevators, for example, and the old wooden seats from the auditorium became a wild ceiling treatment in the entry to the new cinema). And now one of the great pleasures of having community members come through the building is to listen to them puzzle out what things used to be and how they've been transformed.

Is there a part of the building that students have shown a special affinity for? How about staff and faculty?

The coffee shop! Food's a magnet; we knew we needed it to help bring the building to life. But seriously, I think the common spaces are probably the favorites. They manage to be architecturally striking and phenomenally comfortable at the same time.

How does this building relate visually to the rest of the campus?

We had some very serious conversations about this with the design team. How could we take this Frankenstein of a facility—a 1910 schoolhouse, an addition in the 1930s, another addition in the 1950s, with very little care for harmony—and add new construction that would mark it as a Carleton

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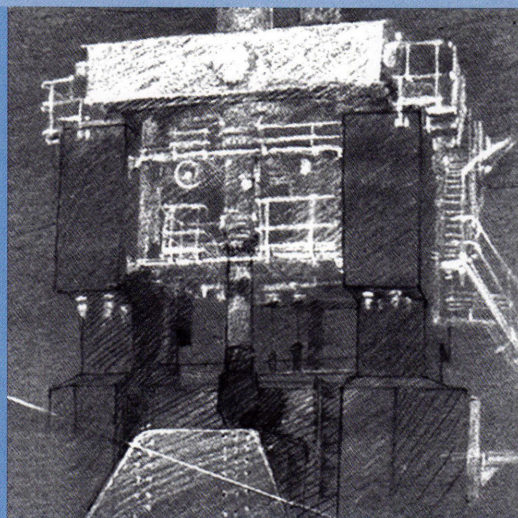
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An image from the travels of the
2011 winner, M. Michael McElderry.

Return Engagement

<< continued from page 25

out. The mostly untouched west end has always provided visitors with a variety of ways to loop between the entrance, auditorium and event space, and the Davis Gallery. But prior to the expansion the east wall of the Davis Gallery had seemed a sudden end point, a terminus. "You always got the feeling that there should be more," says Cook.

In the expansion, the wall that formerly divided the Davis Gallery is gone, and the east wall opens to the new exhibition spaces, whose circulation flow mirrors that of the museum's west side. The design team also brought the hallway to the north of the Davis Gallery forward, so that the popular, walk-in Pedicord Apts. exhibit could be installed behind the wall.

"The new galleries give Lyndel much more freedom and flexibility with her shows and programs," says Edwin Chan. "I'm looking forward to seeing how she uses the museum in the next few years." Some of those visits, he adds, might incorporate planning sessions for another expansion. "We've generated a lot of ideas over the years," says Chan.

"One of the programmatic elements we initially talked about for this phase was a café that would extend toward the river, which Lyndel really wants," he continues. "Unfortunately, we weren't able to incorporate the café into phase two. But it's under consideration for the future."

Meanwhile, the Weisman has become an even more dynamic presence on campus. "The architecture announces to the students, 'This building is about art, and it's right in the middle of your life. You don't have to love it, but you have to deal with it,'" says King. "Great art is like that, too."

The building isn't as shocking as it was in 1993, when "Frank was a well-known architect but not yet a rock star," King continues. The "swoopy" forms of the Guggenheim Museum in Bilbao, Spain, which followed the Weisman, brought Gehry worldwide fame.

Still, says King, the building "is pretty far out. And the new canopy is our swoop, a nod to Frank's architectural innovations since the original Weisman opened. With that canopy, the building is now truly a part of our permanent collection. In that way alone, the building is a huge success." **AMN**

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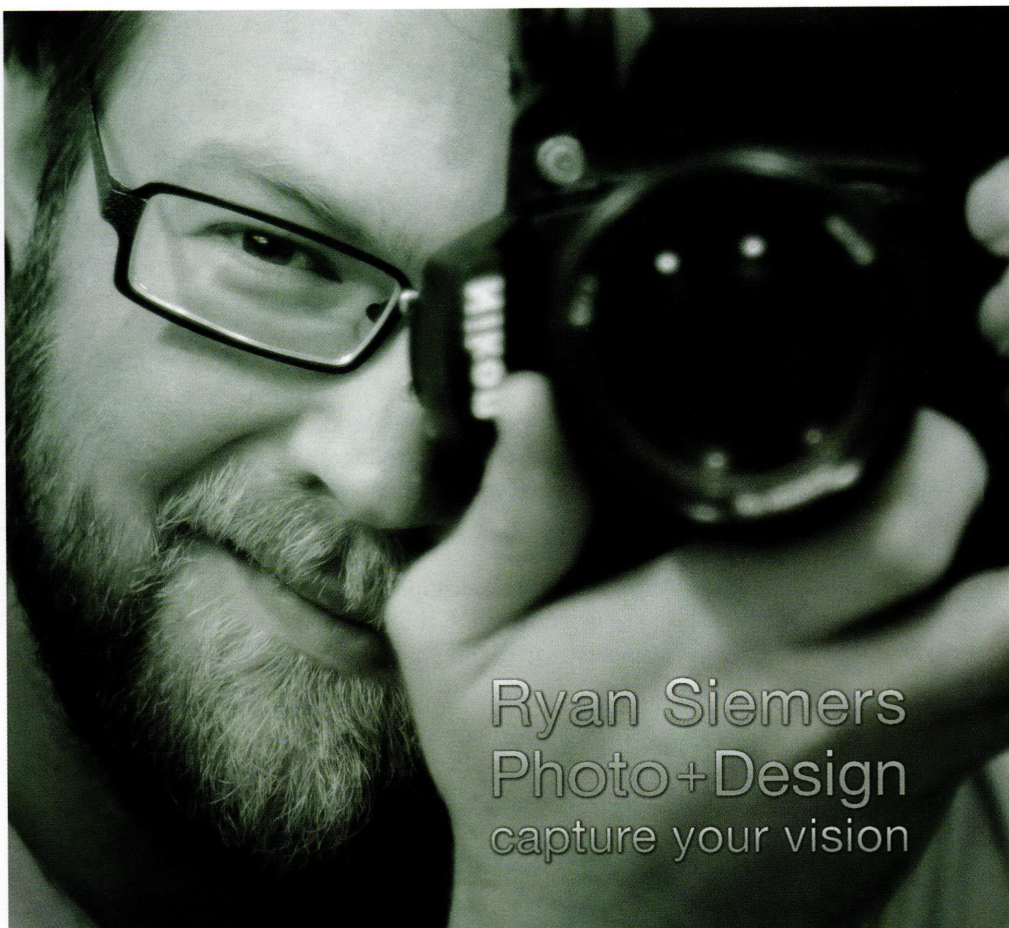
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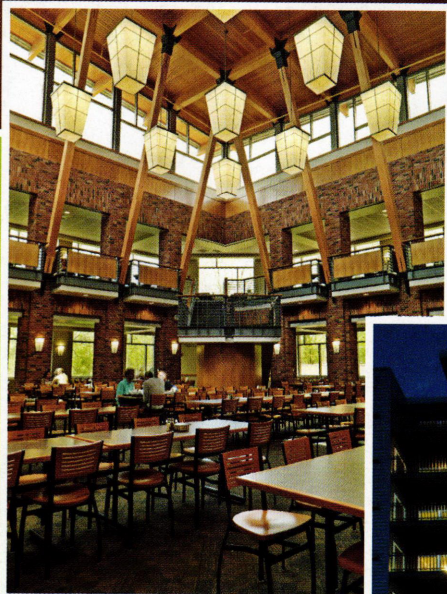
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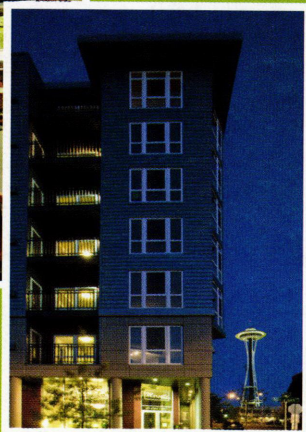
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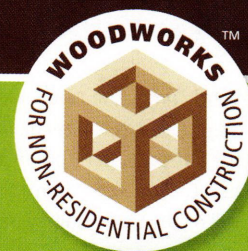
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Passive Lifestyle

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St. Peter, Minnesota, wanted a home that supported self-sufficiency and net-zero energy use, so they embraced an array of passive strategies. "The house uses natural daylighting in all rooms during all seasons," says Nettleton. "Fresh air for ventilation is preconditioned through earth tubes. The house has a narrow plan to promote cooling in the summer by opening the screen doors to a fabulous breeze. The plan was designed to provide flexibility, to optimize sun and wind, to create distinct morning and afternoon spaces, and to provide sunny spots throughout the year. The garage is pulled away from the house with a passageway to the kitchen to ensure the admission of light and air from the north. Materials and systems promote comfort and complement passive strategies. This is a modern take on self-sufficiency."

In recent years, sustainable design guidelines and benchmarks such as Passivhaus and LEED have enjoyed a significant rise in popularity. For Nettleton, standards can be useful, but they also have limitations. "For the Spear House, the goal was self-sufficiency," she explains. "We looked at the Passivhaus criteria but decided not to use it. There are much larger issues related to passive than the focus on energy. You have to consider lifestyle—how the clients want to live. We did use LEED and earned a Gold rating. Benchmarks help you get a grip on where to go, but they don't tell the whole story."

Performance analysis via energy-modeling software is an equally important design tool, she adds. Modeling helps the architect optimize a home's seasonal responses to sunlight, wind, and climate. "The site design is critical, then the massing and form of the building," she says. "With passive heating, you have to consider thermal mass, shading, and the glass to get the right solar-heat-gain coefficient and percentage of glass. Then in the summer you deal with heat, particularly on the west side of the home."

Nettleton's advice to clients is to first consider the lifestyle opportunities of passive design. "It's the homeowners' choice," she says. "They need to decide if passive is a benefit to them. I'm hearing from more people who have decided to be self-sufficient. A 'commonsense green' is how they want to live. Ideally, the architect meets them where they are—by not telling them what to do. It's a conversation, followed by an informed choice. How are you part of the solution? The architect helps the homeowners make it happen." **AMN**

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Passive by Nature

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Salmela's been honing his craft for decades, but he still enjoys learning. In addition to absorbing LEED and Passivhaus standards in recent years, he's kept up on the latest methods of constructing and detailing low- or zero-energy buildings. "Now the idea is to stop the telescoping of cold," he explains. "In the classroom building, the glulam beams don't extend to the outside surface. Windows are designed with gasket elements in the frame to keep the cold out, and the glass is triple-pane. These are things that change the logic of building immensely.

"And then you have the super-insulated walls and roof," he continues. "At Bagley, we installed one foot of rigid insulation outside and inside the foundation walls, as well as on the exterior walls, which are 16 inches thick." The benefits of heavy insulation and airtight construction aren't just environmental; they're economic, too. "I explain to clients that if they insulate to achieve super-low heat loss, they can reduce their energy needs to one-third of that of a building designed to meet code. This reduces the cost of mechanical equipment, its maintenance, and its replacement to one-third of that of a code building. If they can reduce the initial cost of the mechanical equipment, it balances out. The insulation may cost more, but as time goes on the repair and replacement of the equipment is less."

In much the same way that he encourages clients to factor long-term savings into their decision-making, Salmela urges architects to think beyond the current definition of passive design. "The longevity of materials, building maintenance, structural efficiency, vegetated roofs—these considerations go beyond what we now call 'passive,' but they need to be part of the equation," he says. And then he brings the conversation back to aesthetics: "You have to address all of these things, but there's an art to doing it in a way that doesn't diminish the importance of architecture. Architecture shouldn't communicate the technical side of building; it should be emotionally satisfying, because we live and work and learn in these buildings." **AMN**

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Passive Design Excellence

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multiple design issues. "If you can do multiple things with something, clients are more willing to invest in it," says Yoos. "Glazing, for example, connects to the site and creates daylighting, heat, and ventilation. Consider what actually creates a significant change—or what is valuable. We don't know what will happen with future resources, so design for a range of 'possible futures.' Plan for diversity. Technologies change. Passive doesn't."

James suggests flipping the roles of passive and mechanical heating and cooling: "Use passive first and the conventional system as backup." Equally important, he says, is considering the longevity and adaptability of the project and space: "Design to have functional adaptability, including environmental adaptability. Creatively change the space and the use when needed." Above all else, Yoos and James emphasize that architecture is about creating beautiful and meaningful places that people will love and care for through time. "Passive is really about good design," says Yoos. "Conceive of the beautiful, first and foremost." **AMN**

Creative Director

<< continued from page 48

building? Carleton has a pretty eclectic collection of buildings—no unified design standards here. But during the process, we came to realize that almost every building on campus is brick of one kind or another, and the main entrances are wrapped in a lighter-colored stone. So we agreed to set the new art museum in dark brick, with the old red-brick gymnasium on the other side, and then flank the doors with two big stone elements: the smaller gallery in the museum and a big stair tower. Tom Meyer [of MS&R] called it a 21st-century expression of a century-long tradition (or something like that).

Will the lessons learned in this building transfer to any other part of campus or way of teaching at Carleton?

Collaboration and interdisciplinary work are on everyone's mind right now. The new building is undeniably a big shiny expression of that, and a great focal point for that conversation, but the ideas we're working on here are being worked on all over campus. **AMN**

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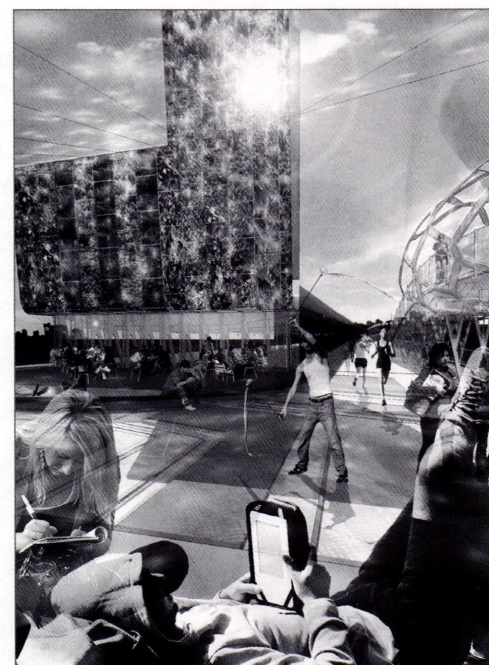
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MnDOT Transportation Building, St. Paul, MN; River Station Condominiums, Minneapolis, MN; Village Townhomes of St. Anthony, Minneapolis, MN; Ramsey County Courthouse, St. Paul, MN; St. Mark's Church, Shakopee, MN; Washington County (north and south service centers), Forest Lake and Cottage Grove, MN; Robert Trail Library, Rosemount, MN

**ENGINEERING
DESIGN INITIATIVE**

1112 North Fifth Street
Minneapolis, MN 55411
Tel: (612) 343-5965
Fax: (612) 343-5982
Email: jhruby@edilimited.com
www.edilimited.com
Established 2002
Total in MN Office: 16
Contact: Jay Hruby (612) 343-5965

Firm Principals

Jay Hruby, PE
Larry Svitak, PE

EDI provides innovative M/E engineering solutions for a variety of building types. Our services include M/E engineering, building commissioning, energy modeling and daylight modeling services. EDI is committed to delivering designs that are energy efficient, maintainable and sustainable. We are passionate in our creative design, attention to detail and commitment to teamwork – from defining initial performance goals through validation by commissioning.

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St. John's Abbey Guesthouse and Chapter House, Collegeville, MN; Wright County Law Enforcement Center, Buffalo, MN; St. Cloud Public Library, St. Cloud, MN; SPPS Central High School Technology Upgrade, St. Paul, MN; City of Minneapolis Water Works Maintenance Facility, Fridley, MN; Blue Earth County Law Enforcement Center, Mankato, MN

**ERICKSEN ELLISON AND
ASSOCIATES**

305 2nd Street NW, Suite 105
New Brighton, MN 55112
Tel: (651) 632-2300
Fax: (651) 632-2397
Email: tpeterson@eeaengineers.com
www.eeaengineers.com
Established 1954
Total in MN Office: 19
Contact: Todd Peterson, (651) 632-2320

Firm Principals

James H. Art, PE
Terri A. Fleischhacker
Todd A. Peterson, PE
William F. Thiesse, PE

EEA is a mechanical/electrical engineering company with extensive experience in design and commissioning of - Public Projects: judicial/correctional, libraries, government, and maintenance. Commercial: medical facilities, data centers, and retail. Education: recreation centers, libraries, laboratories, dormitories, and campus centers; EEA has LEED certified engineers specializing in system modeling and innovative approaches for reducing energy consumption without sacrificing utility or comfort.

Minneapolis Central Library (design/ commissioning), Minneapolis, MN; Grinnell College New Campus Center (design and LEED certification review), Grinnell, IA; MCF Faribault Campus (energy infrastructure/ renovation/new buildings), Faribault, MN; Unisys NAEC Data Center (design/ commissioning), Eagan, MN; Macalester College (athletic/recreation center), St. Paul, MN; Bethel University Commons, Arden Hills, MN; Eli Lilly Corporate Data Center, Indianapolis, IN

**ERICKSEN, ROED AND
ASSOCIATES, INC.**

2550 University Avenue West, Suite 201-S
St. Paul, MN 55114
Tel: (651) 251-7570
Fax: (651) 251-7578
Email: info@ericksenroed.com
www.ericksenroed.com
Established: 1985
Total in MN Office: 47
Other Office: Eau Claire, WI
Total in Other Office: 3
Contact: Michael DeSutter or Kent Larson, (651) 251-7570

Firm Principals

Michael A. DeSutter, PE
James D. Roed, PE
William T. Buller, PE, SE
Robert J. Quinn, PE
Michael S. Steenson, PE

Ericksen Roed and Associates are full-service, structural engineers who deliver our clients innovative and economical design solutions. Our range of markets include retail, commercial, medical, energy multi-family hospitality, arts and educational, parking facilities, sports/recreation/entertainment, high-rise, remodeling and renovation projects. We are registered throughout the United States; utilize Revit/BIM software, and are the developers of the (Patented) ER-Post precast building system.

TCF Bank Stadium, University of Minnesota, Twin Cities Campus, Minneapolis, MN; United Health Group (phase II tower and ramp), Minnetonka, MN; Target Stores, North America; Wayzata Bay Presbyterian Homes Senior Living, Wayzata, MN; Life Time Fitness Facilities, North America; Guthrie Theater and Parking Ramp, Minneapolis, MN; Minneapolis Children's Hospital (expansion), Minneapolis, MN; University of Minnesota Biomedical Discovery District (phase II), Minneapolis, MN

ESI ENGINEERING, INC.

7831 Glenroy Road, Suite 430
 Minneapolis, MN 55439
 Tel: (952) 831-4648
 Fax: (952) 831-6897
 Email: tbaxter@esi-engineering.com
 www.esi-engineering.com
 Established 1970
 Total in MN Office: 6
 Contact: Anthony J. Baxter, (952) 831-4648

Firm Principals

R. Barry Whiteaker, PE
 Anthony J. Baxter, PE
 Carl A. Nelson, PhD, PE

ESI Engineering, Inc. provides professional engineering services to A/E firms and industrial clients in the areas of structural dynamics vibration control, noise control and isolation design for buildings and equipment. Established in 1970 as a Minnesota-based corporation, ESI specializes in solving challenging noise and vibration problems in precision manufacturing, research laboratory and hospital facilities.

US Army - ATC Roadway Simulator Building Foundation Design, Aberdeen, MD; Advanced Crash Simulator Foundation Design, Volvo Car Corporation, Goteborg, Sweden; Strong Wall/Strong Floor Design, MAST Laboratory, University of Minnesota, Minneapolis, MN; Noise and Vibration Control, Regions Hospital, St. Paul, MN; Vibration Control, Basic Sciences and Biomedical Engineering Building, University of Minnesota, Minneapolis, MN; Noise and Vibration Control for the NDSU Center for Nano-scale Science and Engineering, Fargo, ND

FOSTER, JACOBS & JOHNSON, INC.

345 Canal Park Drive, Suite 200
 Duluth, MN 55802
 Tel: (218) 722-3060
 Fax: (218) 722-1931
 Email: mail@fjj.com
 www.fjj.com
 Established 1922
 Total in MN Office: 11
 Contact: James Johnson, (218) 722-3060

Firm Principals

James R. Johnson, PE
 Charles F. Jacobs, PE

continued next column

We offer full-service mechanical and electrical consulting services, including design and preparation of contract documents for fire protection, plumbing, HVAC, controls, lighting, power distributions, communications and life safety systems and construction administration.

Denfeld High School (miscellaneous improvements and addition), Duluth, MN; Douglas County Courthouse (3rd floor renovation), Superior, WI; Duluth Steam for St. Luke's Additions, Duluth, MN; Eastern High School (mechanical systems commissioning), Duluth, MN; Minnesota Air National Guard (south hanger), Minneapolis, MN; Mont du Lac Recreation Chalet, Superior, WI; Specialty Minerals (new facility lighting and power distribution), Superior, WI; West Town Center, Marquette, MI

GAUSMAN & MOORE ASSOCIATES, INC.

700 Rosedale Towers
 1700 Highway 36 West
 Roseville, MN 55113
 Tel: (651) 639-9606
 Fax: (651) 639-9618
 Email: mleutgeb@gausman.com
 www.gausman.com
 Established 1935
 Other MN Offices: Duluth
 Total in MN Office: 70
 Other Office: Los Angeles
 Total in Other Offices: 12
 Contact: Mark Leutgeb, Principal, Bus. Dev., (651) 604-3141

Firm Principals

Edward L. Studniski, PE, LEED AP
 James A. Keller, PE, LEED AP
 D. Lane Hersey, PE, LEED AP
 Robert B. Full, PE
 James D. Manning III, PE, LEED AP
 Dave T. Blume, PE, LEED AP
 Paul D. Haslach, PE, LEED AP

We are a nationwide practice providing mechanical, electrical, plumbing, fire protection, low voltage design, and building commissioning services. Our commitment to sustainable design and high performance buildings includes four net-zero energy projects that incorporated renewable energy technologies; photovoltaics, wind power; active and passive solar, along with aggressive energy reduction technologies. Business sectors include: retail, corporate,

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government, military, education, industrial, facility assessments, healthcare, forensic, athletic facilities, and high tech.

University of Minnesota Duluth, Bagley Classroom (LEED Platinum Certified), Duluth, MN; UnitedHealth Group, Nationwide; General Services Administration (offices at Norman Pointe II), Bloomington, MN; Community Memorial Hospital (Phase II - addition and remodel), Cloquet, MN; The Aerospace Corporation, El Segundo, CA; Target Stores (new and remodel), Nationwide and Canada; U.S. Army Reserve (training and vehicle maintenance centers), Nationwide

HALLBERG ENGINEERING, INC.

1750 Commerce Court
 White Bear Lake, MN 55110
 Tel: (651) 748-1100
 Fax: (651) 748-9370
 Email: hei@hallbergengineering.com
 www.hallbergengineering.com
 Established 1979
 Total in MN Office: 40
 Contact: Rick Lucio, VP, (651) 748-4386

Firm Principal

Joseph Hallberg, PE

Hallberg Engineering, Inc. (HEI) is a mechanical and electrical consulting engineering firm. We specialize in the design of mechanical, electrical, and technology systems, along with building analysis and commissioning. Our services also include system upgrades and retrofits to improve indoor air quality and energy conservation. Hallberg is the Minnesota distributor of the Schools for Energy Efficiency (SEE) Program and the CLASS 5 Workplace product.

University of St. Thomas Anderson Student Center (LEED mechanical design), St. Paul, MN; University of St. Thomas Anderson Athletic & Recreation Center (mechanical and electrical design), St. Paul, MN; REI Store (LEED mechanical and electrical design and commissioning), Chicago, IL; Minnesota Sex Offender Program (MSOP) (phase I expansion - MSBG mechanical and electrical design and commissioning), Moose Lake, MN; Chanhassen High School (mechanical, electrical and technology design), Chanhassen, MN; East Ridge High School (mechanical, electrical and technology design), Woodbury, MN; Andover YMCA Community Center (mechanical, electrical and technology design), Andover, MN

HAMMEL, GREEN AND ABRAHAMSON, INC. (HGA)

701 Washington Avenue North
 Minneapolis, MN 55401
 Tel: (612) 758-4000
 Fax: (612) 758-4199
 Email: info@hga.com
 www.hga.com
 Established 1953
 Other MN Office: Rochester
 Total in MN Offices: 281
 Other Offices: Milwaukee, Sacramento, Los Angeles, San Francisco, Washington DC
 Total in Other Offices: 225
 Contact: Julie Luers, Dir. Mktg. (612) 758-4613

Firm Principals

Chuck Cappellin, PE, LEED AP
 Jeff Harris, PE, LEED AP
 Leigh Harrison, PE, LEED AP
 Kenny Horns, PE, LEED AP
 Doug Maust, PE, LEED AP
 Yan Shagalov, PE

HGA has engineering expertise in the design of a broad range of facility types. In addition to traditional civil, mechanical, structural and electrical engineering, HGA has specialists in commissioning, clean environments, industrial processes, central plants, energy saving controls, utility infrastructure, facility assessments, telecommunications systems design, healthcare technology applications design, specialty lighting and sustainable design, as well as alternate delivery methods.

B.H. Whipple Federal Building (renovation), Fort Snelling, MN; American Swedish Institute (addition), Minneapolis, MN; Hazelden Center for Youth and Families, Plymouth, MN; Fremont Biogas Power Plant, Fremont, MI; University of Minnesota, Northrup Auditorium (renovation), Minneapolis, MN; Normandale Community College (parking structure), Bloomington, MN

INSPEC, INC.

5801 Duluth Street
Minneapolis, MN 55422
Tel: (763) 546-3434
Fax: (763) 546-8669
Email: fking@inspec.com
www.inspec.com
Established 1973
Total in MN Office: 54
Other Offices: Milwaukee, Chicago
Total in Other Offices: 12
Contact: Fred King, (763) 546-3434

Firm Principals

Michael D. Remington, PE
Gary Patrick, AIA, RRC
Brent Boelter, PE
Dwight Benoy, PE
Dave Campbell, AIA, RWC, GRP
Gary Larson, AIA

INSPEC provides smart engineering for roofs, walls, windows, pavements, waterproofing, and other specialized services. Our services include: surveys, evaluations, failure investigations, design, consultation, expert witness testimony, construction administration/observation, on site and laboratory testing, and customized facility management programs. We also specialize in historic buildings and outdoor athletic facilities.

Target Center (roof replacement - vegetated and non-vegetated), Minneapolis MN; Minnesota State Community and Technical College (roof replacement), Wadena, MN; Hamline University, Old Main Building (window replacement), St. Paul, MN; Minneapolis/St. Paul International Airport (concourse expansion, tunnel/foundation waterproofing), Bloomington, MN; Iowa Hi-Rise (exterior re-cladding and window replacement), St. Paul MN; St. Thomas Academy (Synthec turf field construction), Mendota Heights, MN

KARGES-FAULCONBRIDGE, INC.

670 West County Road B
St. Paul, MN 55113
Tel: (651) 771-0880
Fax: (651) 771-0878
www.kfiengineers.com
Established 1996
Total Staff: 95
Contact: David Jansa, (651) 771-0880

Firm Principals

James A. Faulconbridge, PE
Randy P. Christenson, PE

Karges-Faulconbridge, Inc. (KFI) is a recognized industry leader in process and facility infrastructure design and performance. We serve clients in the United States, Canada and Central America, and have capabilities not commonly found in traditional engineering firms. Located in St. Paul, KFI's corporate office was the first building in Minnesota to obtain the LEED-EB Gold certification. KFI has extensive experience in engineering and commissioning services for industrial, institutional, educational, healthcare, government, and commercial organizations.

Riverside Plaza (improvements), Minneapolis, MN; Wadena-Deer Creek High School, Wadena, MN; University of Minnesota-Morris Welcome Center, Morris, MN; Wayzata Public Schools (commissioning), Wayzata, MN; TCF Bank Stadium (commissioning), Minneapolis, MN

KIMLEY-HORN AND ASSOCIATES, INC.

2550 University Avenue West, Suite 238N
St. Paul, MN 55114
Tel: (651) 645-4197
Fax: (651) 645-5116
Email: tom.lincoln@kimley-horn.com
www.kimley-horn.com
Established 1967
Total in MN Office: 74
Other Offices: Raleigh (Corporate), 64
Offices Nationwide
Total in Other Offices: 1,587
Contact: Thomas J. Lincoln, PE
(651) 643-4197

Firm Principals

Gary Ehret, PE
Paul Danielson, PE
Michael Hermann, PE
Jon Horn, PE

continued next column

Kimley-Horn and Associates, Inc. is a national consulting engineering firm with a Twin Cities office that serves private and public clients across the Midwest. Our capabilities encompass all phases of a project from early planning through construction administration. Kimley-Horn effectively integrates engineering, planning, transportation, and environmental services to efficiently meet our clients' objectives.

Central Corridor LRT, Minneapolis to St. Paul, MN; Metropolitan Airports Commission, MSP International Airport, MN; City of Maplewood Municipal Services, Maplewood, MN; Bloomington Central Station Development, Bloomington, MN; Penn and American Development, Bloomington, MN; Shingle Creek Crossing, Brooklyn Center, MN; Park Summit Apartments, St. Louis Park, MN; Judge Doyle Square (master plan), Madison, WI

KRECH, O'BRIEN, MUELLER & ASSOCIATES

6115 Cahill Avenue
Inver Grove Heights, MN 55076
Tel: (651) 451-4605
Fax: (651) 451-0917
Email: jkrech@komainc.com
www.komainc.com
Established 1987
Total in MN Office: 18
Contact: James Krech, (651) 789-4120

Firm Principals

James H. Krech, PE
Michael J. Lisowski, PE
Matthew J. Van Hoof, PE
Daniel J. O'Brien, AIA
Brady R. Mueller, AIA

KOMA offers structural engineering, architecture and interior design services. Registered as structural engineers in 37 states, typical projects include industrial, commercial, institutional, ecclesiastical, forensic, agricultural, blast resistance and hazardous waste confinement. Specialties include granular material storage, hazardous liquid containment, corrosive environments, blast resistance and aluminum green house design.

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Allina Medical Clinic, Ramsey, MN; Longhorn Steak House, Nationwide; VA Medical Center, Ramsey, MN; Armstrong Elementary School (renovations), Cottage Grove, MN; Lego Models - Disney World, Orlando, FL; Steak 'N Shake, Nationwide

LARSON ENGINEERING, INC.

3524 Labore Road
White Bear Lake, MN 55110
Tel: (651) 481-9120
Fax: (651) 481-9201
Email: info@larsonengr.com
www.larsonengr.com
Established 1979
Total in MN Office: 54
Other Offices: Appleton, Milwaukee, Chicago, Naperville, Omaha, St. Louis, Scottsdale, Atlanta
Total in Other Offices: 177
Contact: Kesh Ramdular, PE (651) 481-9120

Firm Principals

Lee Granquist, PE
Kesh Ramdular, PE
Henry Voth, PE
Roger Potta, PE

Larson Engineering is a national consulting engineering firm founded in 1979, and headquartered in White Bear Lake, MN. We excel in curtain wall design and restoration, pavement maintenance programs, athletic facilities, and commercial/industrial structures. We are registered in all 50 states, 7 Canadian provinces, Puerto Rico, and the U.S. Virgin Islands.

Target Stores PMP, Multiple U.S. Locations; Shoreview Maintenance Facility, Shoreview, MN; Staring Lake Observatory, Eden Prairie, MN; Toyota Portals, Multiple U.S. Locations; Hennepin County Service Center, Brooklyn Center, MN; Northeast Family YMCA, White Bear Lake, MN; Hanifl Fields Park Shelter, Hugo, MN; Annandale Elementary School, Annandale, MN

LKPB ENGINEERS, INC.

1935 West County Road B2, Suite 300
St. Paul, MN 55113
Tel: (651) 633-1223
Fax: (651) 633-1355
Email: karla.sampson@lkpb.com
www.lkpb.com
Established 1969
Total in MN Office: 42
Contact: Karla Sampson (651) 288-6110

Firm Principals

Peter A. Potvin, PE
Gayland J. Bender, PE
John M. Killeen, PE
Michael A. Westemeier, PE

LKPB Engineers, Inc. (LKPB) is a mechanical and electrical consulting engineering firm founded in 1969. The firm provides services to clients in the education, healthcare, corporate, commercial, historical, recreational and government environments. Services include design phase, master planning, construction documentation, construction administration and commissioning.

TCF Bank Football Stadium, University of Minnesota, Minneapolis, MN; Tufts University (athletic addition), Medford, MA; West 7th Fire Station and Headquarters, Saint Paul, MN; 8200 Tower, Normandale Lakes Office Park, Bloomington, MN; Carleton College (new residence halls), Northfield, MN; Como Zoo Polar Bear Odyssey, Saint Paul, MN

LOUCKS ASSOCIATES

7200 Hemlock Lane, Suite 300
Maple Grove, MN 55369
Tel: (763) 424-5505
Fax: (763) 424-5822
Email: home@loucksassociates.com
www.loucksassociates.com
Established 1976
Contact: Mike O'Brien (763) 424-5505

Firm Principals

Nick M. Mannel, PE
Jon J. Donovan, PE

continued next column

Loucks Associates provides civil engineering, surveying, landscape architecture, planning and environmental services. These services include site layout, grading, storm water conveyance systems, water quality retention ponds, wetland mitigation, landscape architecture, parks and trails, EAW/ EIS documents, groundwater studies, ALTA title surveys, site feasibility studies, comprehensive plan amendments, rezoning, GIS, permitting and approvals for industrial, commercial, retail, corporate campus, assisted living, senior co-op, townhome and education facilities.

Maple Grove Hospital, Maple Grove, MN; CVS Stores, Various MN Locations; St. Jude Medical Campus, Little Canada, MN; Children's Hospital, Minneapolis, MN; University of Minnesota (education/sciences building), Minneapolis, MN; Cuyuna Senior Housing, Crosby, MN

MATTSON MACDONALD YOUNG, INC.

901 North 3rd Street, Suite 100
Minneapolis, MN 55401
Tel: (612) 827-7825
Fax: (612) 827-0805
www.mattsonmacdonald.com
Established 1983
Total in MN Office: 12
Contact: Stephanie Young, PE

Firm Principals

David H. Macdonald, PE
Stephanie J. Young, PE
Eric Bunkers, PE
Joe Cain, PE

Mattson Macdonald Young, Inc. provides structural engineering services for a wide range of building types and sizes. We provide analysis and design for new construction, adaptive reuse, renovation and expansion. We have provided services for multi-million dollar, high-rise construction and one-room porch additions. We strive to produce good work and make sure our clients enjoy the experience of working with us.

continued next column

The Chambers Hotel, Minneapolis, MN; The Humboldt Mill + Annex, Minneapolis, MN; The Alliance Apartments, Minneapolis, MN; The Boxleitner Building, Minneapolis, MN; Sienna Green II, Roseville, MN; The Passive House, Hudson, WI; Multiple Residences on the "Homes by Architects" Tour, MN Zoo Woodland Adventure, Apple Valley, MN

MCCONKEY JOHNSON SOLTERRMAN, INC.

241 Cleveland Avenue South, Suite B2
St. Paul, MN 55105
Tel: (651) 698-5626
Fax: (651) 698-5628
Email: rjohnson@mjs-inc.net
www.mjs-inc.net
Established 1978
Total in MN Office: 6
Contact: Richard W. Johnson, (651) 698-5626 x16

Firm Principals

Richard W. Johnson, PE
Christian Soltermann, PE

We offer structural engineering consulting services for commercial, industrial, institutional and residential projects; also structural assessments of existing structures. Design office that stresses cooperation, communication and a knowledgeable exchange of ideas. Licensed in 16 states.

PPL-West 7th Housing, St. Paul, MN; Nissan of Omaha, Omaha, NE; Harmon Development, Minneapolis, MN; Bii Di Gain Dash Anwebi Elder Housing, Minneapolis, MN; FedEx Express, Roseville, MN; Vinland National Center, Loretto, MN; Mayo ECFU, Rochester, MN; First State Bank Southwest, Pipestone, MN

MEYER, BORGMAN & JOHNSON

12 South Sixth Street, Suite 810
Minneapolis, MN 55402
Tel: (612) 338-0713
Fax: (612) 337-5325
Email: info@mbjeng.com
www.mbjeng.com
Established 1966
Other MN Office: Duluth
Other Offices: Phoenix, Green Bay
Contact: Dan Murphy (612) 604-3604

Firm Principals

Daniel E. Murphy, PE
Michael J. Ramerth, PE
Jerod Hoffman, PE
Anthony J. Polusny, PE
Brion Szwed, PE

continued next column

50 years of thorough, responsive, and creative structural design for all building types. Committed to provide design solutions that fulfill the architectural vision while maintaining constructability and value to the owner. Services include design, analysis, feasibility studies, construction documents, field observation, special inspections, forensics, and ramp condition surveys.

University of Minnesota - Fairview Amplatz Children's Hospital, Minneapolis, MN; Coloplast North American Headquarters (expansion), Minneapolis, MN; Northrop Auditorium (renovation), Minneapolis, MN; Duluth Airport Terminal (expansion), Duluth, MN; Minnesota Orchestra Hall (renovation), Minneapolis, MN; Target Field (peer review, construction administration, steel connection design), Minneapolis, MN

MICHAUD COOLEY ERICKSON

333 South Seventh Street, Suite 1200
Minneapolis, MN 55402
Tel: (612) 339-4941
Fax: (612) 339-8354
Email: drafferty@michaudcooley.com
www.michaudcooley.com
Established 1946
Contact: Dean Rafferty, PE, LEED AP (612) 673-6802

Firm Principals

Dean A. Rafferty, PE, LEED AP
Douglas C. Cooley, PE, LEED AP
Joseph A. Tennyson

Michaud Cooley Erickson has provided consulting engineering services for over 65 years. With a team of over 125, we are the largest consulting engineering firm in the region. In addition to mechanical and electrical engineering, we have specialists in fire protection, lighting design, low-voltage/technology systems and commissioning. Our primary markets include aviation, corporate, cultural/special use, education, healthcare, high-tech, public, retail and mission critical sectors.

Metropolitan Airports Commission, Minneapolis/St. Paul International Airport; University of Minnesota 4th Street Residence Hall, Minneapolis, MN; General Mills, MN; Target, Multiple Locations; Confidential Tier IV Data Center (financial client), KS; St. Jude Medical, Little Canada, MN; Musical Instrument Museum, Phoenix, AZ

REIGSTAD & ASSOCIATES, INC.

192 West 9th Street
St. Paul, MN 55102
Tel: (651) 292-1123
Fax: (651) 292-9565
Email: greigstad@reigstad.com
www.reigstad.com
Established 1979
Total in MN Office: 25
Other Office: Gulfport, MS
Total in Other Office: 1
Contact: Gordon H. Reigstad (651) 292-1123

Firm Principals

Gordon H. Reigstad, PhD, PE, SE
Charles R. Ashton, PE
Yendranata, PE

Reigstad & Associates provides structural engineering services to clients throughout the United States. We offer alternate design options and consider the availability of material and labor to ensure requirements are met in a timely and cost-effective manner. Our Parking Consulting team provides full service parking consulting including parking analysis, functional/conceptual design, wayfinding design, complete documentation and project management. The Precast Engineering Department provides complete precast engineering and shop drawings to produce precast components.

University of Minnesota Ridder Hockey Arena and Tennis Facility, Minneapolis, MN; Monticello Community Center, Monticello, MN; Orono Professional Building II, Orono, MN; RiverCentre Parking Ramp (restoration), St. Paul, MN; Crosstown Medical Office Building (parking ramp), Edina, MN; Westwood Church, Excelsior, MN; Harrah's Cherokee Hotel (casino and parking garages), Cherokee, NC; Epic Systems Corporation, Madison, WI

SEBESTA BLOMBERG

2381 Rosegate
Roseville, MN 55113
Tel: (651) 634-0775
Fax: (651) 634-7400
Email: info@sebesta.com
www.sebesta.com
Established 1994
Other MN Office: Rochester
Total in MN Office: 100

continued next column

Other Offices: Arlington, Boston, Chicago, Dallas, Fargo, Houston, Los Angeles, West Palm Beach
Total in Other Offices: 85
Contact: Robert Riesselman,
(651) 634-7290

Firm Principals

Tony R. Litton, PE, CEM
Dan Tollman

Sebesta Bloomberg is an engineering-consulting firm, providing engineering design, commissioning, eco-management, energy management, facility support, and owner's rep services to healthcare, higher education, government, and transportation markets.

Minnesota Zoo, Russia's Grizzly Coast, Apple Valley, MN; General Services Administration, Warroad Border Station, Warroad, MN; North Carolina State University Steam Plant (renovation/expansion), Raleigh, NC; University of Minnesota Moos Tower Surgical Resource and Cancer Laboratories (renovation), Minneapolis, MN; Mayo Foundation Stabile Building (renovation), Rochester, MN; Indianapolis International Airport (midfield terminal project), Indianapolis, IN

SHORT ELLIOTT HENDRICKSON INC. (SEH)

3535 Vadnais Center Drive
St. Paul, MN 55110-5196
Tel: (800) 325-2055
Fax: (888) 908-8166
Email: trustedadvisor@sehinc.com
www.sehinc.com
Established 1927
Other Offices: Brainerd, Duluth, Grand Rapids, Hutchinson, Mankato, Minnetonka, St. Cloud, Virginia, Worthington MN; Appleton, Chippewa Falls, La Crosse, Madison, Milwaukee, New Richmond, Rice Lake, Sheboygan, Superior, WI; Sioux Falls, SD, Munster, IN
Contact: Lora Grgich, AIA (800) 325-2055

Firm Principals

Peter Carlson, PE
Sue Mason, PE
Sam Claassen
Lora Grgich, AIA, LEED AP
Larry Koch, AIA
Bob Kost, ASLA, LEED AP
Veronica Anderson, AICP

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SEH is a professional services firm of 550 engineers, architects, planners, and scientists. Our purpose is Building a Better World for All of Us™. We do this by providing civil, architectural design, environmental, transportation, water, wastewater, and structural engineering; funding; planning and landscape design; surveying, and technology and GIS services. We have been in business for 85 years serving public and private clients from offices across the Midwest.

Murray County Sheriff's Office; Carnegie Library Addition, Dell Rapids, SD; Fire Station, Clear Lake, IA; Eagan Fire Station Eagan, MN; Shanz Hall (remodel); AFB Fire Station, Grand Forks, ND

STEEN ENGINEERING, INC.

5430 Douglas Drive North
Crystal, MN 55427
Tel: (763) 585-6742
Fax: (763) 585-6757
Email: steen@steeneng.com
www.steeneng.com
Established 1993
Total in MN Office: 18
Contact: Eugene A. Striefel, (763) 235-4781

Firm Principals

Mark R. Brengman, PE
Steven M. Youngs, PE
Eugene A. Striefel

Steen Engineering provides mechanical and electrical engineering design from feasibility studies to preparing construction documents. Design experience includes corporate, municipal, medical, hospitality, institutional and retail. Providing HVAC, plumbing, fire protection, lighting, power distribution, life safety, automatic temperature control, energy and analysis and deficiency studies.

St. Joseph - Carondelet, St. Paul, MN; Olmsted County Public Works Facility, Rochester, MN; Walker Thompson Hill, West St. Paul, MN; McDonalds, Nationwide; Skilled Nursing/Assisted Living Project, Nationwide; Normandale Community College (chiller replacement), Bloomington, MN

TKDA

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Fax: (651) 292-0083
Email: facilities@tkda.com
www.tkda.com
Established 1910
Total in MN Offices: 171
Other Offices: Chicago, Kansas City, Irvine, Tampa
Total in Other Offices: 20
Contact: Thomas S. Stoneburner, PE
(651) 292-4485

Firm Principals

William E. Deitner, PE
Vincent T. Montgomery, PE
Thomas S. Stoneburner, PE
Kevin R. Cullen, PE
John W. Ahern, PE
Larry D. Bohrer, PE
Bret M. Farmer, PE

Single Source, Multi-disciplinary, Facilities Division specializing in 5 Markets: corporate/industrial, education, sports/recreation/wellness, alternative energy, government, heating/power/cooling, and sports/recreation. Services: mechanical, electrical, structural, civil/site, architecture, interiors, landscape architecture. Systems: structural and architectural building systems, boiler and chiller, process piping, HVAC, plumbing, utilities, fire protection, power distribution, lighting, fire alarm, security, instrumentation and controls. Site: access roads, rail, parking lots, utilities, water supply, water and wastewater treatment.

Rochester Community and Technical College (district heating system conversion - phase I), Rochester, MN; Saint Paul Public School (Farnsworth roof and piping replacement), Saint Paul, MN; Olmsted County (Green Pipes - east expansion of district heating system), Rochester, MN; Liberty Paper (150,000 lbs/hr contingency boiler), Becker, MN; 3M Company (various projects), Nationwide; AMTRAK (King Street coach yard facilities upgrades), Seattle, WA; Metro Transit Light Rail Transit (operations and maintenance facility expansion), Minneapolis, MN; Three Rivers Park District - Baker Park (shoreline restoration), Medina, MN

ULTEIG

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 Fax: (763) 571-1168
 Email: connect@ulteig.com
 www.ulteig.com
 Established 1944
 Other MN Office: Detroit Lakes
 Total in MN Offices: 102
 Other Offices: Cedar Rapids, Fargo,
 Bismarck, Williston, Sioux Falls, Denver
 Total in Other Offices: 220
 Contact: Craig Anderson, (701) 280-8500

Firm Principals

Eric Michel, PE
 Brian Long, PE
 Mike Fisher, PE (Building Services)
 Jason Hoskins, PE (Energy Services)
 Dave Pillatzke, PE (Civil Services)
 Gary Ness, PLS (Land Services)

Ulteig provides a variety of engineering and surveying services to facilities in education, community and commercial development, corporate/industrial, healthcare, and government markets. Our team of experts works with clients from planning to project completion. We can act as the owner's representative by providing construction administration and observation services or by being a partner on a design-build team. Specialty services include: fire protection engineering, lighting design, BIM, and HD scanning.

Hamline University (Arc Flash study), St. Paul, MN; Sanford Health (hospital remodeling), Wheaton, MN; ConAgra (tank installation), Lakeville, MN; Concordia College (science and business center design and topography survey), Moorhead, MN; Minnesota Veterans Home (100-bed facility), Minneapolis, MN; University of Minnesota-Duluth (NOVA far detector building, Fermi Lab), Duluth, MN; University of Minnesota-Morris (campus smart meters), Morris, MN; Veterans Administration Medical Center (buildings 48 and 49 - geothermal upgrades), St. Cloud, MN

VAA, LLC (VAN SICKLE, ALLEN)

2955 Xenium Lane North, Suite 10
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 Fax: (763) 559-6023
 Email: info@vaaeng.com
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 Established 1978
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 Other Office: Hutchinson, KS
 Total Other Office: 3
 Contact: Scott Stangeland, (763) 577-9132

Firm Principals

Keith W. Jacobson, PE, LEED AP
 Scott A. Stangeland, PE
 Kelsey F. Brown, PE, SE
 Mark D. Mielke, PE, LEED AP
 Jeffrey J. Schrock, PE, LEED AP
 Bernie Jansen
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VAA, LCC (Van Sickle, Allen) is committed to meeting the expectations of our clients, providing collaborative thinking, proactive communication, innovative solutions, and unparalleled service and support. We are engineering consultants providing structural and civil engineering services for commercial, corporate, retail, hospitality, education, civic, healthcare, multi-family housing, mixed use, industrial, senior housing, government, and parking facilities.

VA Pharmacy, Minneapolis, MN; Polar Semiconductor, Bloomington, MN; Hazeltine National Golf Club, Chaska, MN; Target Corporation, Nationwide; Sydney Hall, Minneapolis, MN; American Hospital, Dubai, UAE; Shaller Family Shalom East Campus, St. Paul, MN; Isleta Casino and Resort Hotel/Convention Center, Albuquerque, NM

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10100 Morgan Avenue South
 Bloomington, MN 55431
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 Fax: (952) 888-2587
 Email: info@wenzelengineering.com
 www.wenzelengineering.com
 Established 1990
 Total in MN Office: 6
 Contact: Lowell Wenzel, (952) 888-6516

Firm Principals

Lowell E. Wenzel, PE
 Patricia A. Cole, PE
 Jeff A. Segar, PE

continued next column

Wenzel Engineering, Inc. is a structural engineering firm dedicated to understanding and meeting our clients' goals. Our experience includes new facilities, renovations, additions, and investigations for commercial, industrial, public, retail, educational, religious and healthcare clients.

Blue Lake Wastewater Treatment Plant Improvements; Twins Stadium, Minneapolis, MN; Gopher Stadium, Minneapolis, MN; McNamara Alumni Center (addition), Minneapolis, MN; Duluth Convention Center (addition), Duluth, MN; University of Minnesota (science teaching and student services building), Duluth, MN

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WSN is a fully, integrated engineering, architecture, land surveying, and environmental services firm. Our engineering group includes civil engineering, primarily municipal and water resources; structural, project specific, industrial, and bridges; and mechanical/electrical, HVAC, plumbing, and lighting. Our complete team of over 150 employees solves a variety of design challenges from planning through construction.

Greenwood Street Bridge, Thief River Falls, MN; Mille Lacs Academy, Onamia, MN; TH 2 - Wilton Bridge Replacement (design/build project), Bemidji, MN; Douglas County Public Works Facility, Alexandria, MN; US 14 Beltline Mill and Overlay Design, Rochester, MN Rattlesnake Bluff Trail System, Wacouta Township, MN

It takes a village to design, engineer, and construct a great building. So let's give credit where credit is due.

Weisman Art Museum Expansion

page 20

Location: Minneapolis, Minnesota
 Client: Frederick R. Weisman Art Museum, University of Minnesota
 Design architect: Gehry Partners
 Design partner: Frank Gehry, FAIA
 Project designer: Edwin Chan
 Project manager: John Bowers, AIA
 Design team: Yoram LePair; Christoph Groth; Kimberly Watts
 Executive architect: HGA Architects and Engineers (HGA)
 Principal-in-charge: James Goblirsch, AIA
 Senior project architect: John Cook, FAIA
 Project architect: Robert Good, AIA
 Architecture team: Justin Bice; Ernesto Ruiz-Garcia; Daniel Yudchitz, AIA
 Energy modeling: HGA
 Structural engineer: HGA
 Mechanical engineer: HGA
 Electrical engineer: HGA
 Civil engineer: Rani Engineering
 Lighting design: L'Observatoire International
 Additional HGA team members: Gwen Dewars; Christina Dumoulin; Tao Ham; John Wellvang; Ron Burns, AIA
 General contractor: J.E. Dunn Construction Company
 Landscape architect: HGA
 Landscape project team: Ted Lee; Trygve Hansen
 Building canopy and metal panel: M.G. McGrath Sheet Metal
 Structural steel: LeJeune Steel Company
 Exterior and interior cold-formed framing and drywall: Zintl Inc.
 Electrical and lighting: Parsons Electric Corporation

Mechanical and plumbing: Egan Company
 Concrete: Kelleher Construction
 Windows: Kawneer Corporation
 Window and skylight shades: Nysan Solar Control
 Wood flooring: Anderson Ladd
 Lighting controls: Lutron Electronics, Inc.
 Shade controls: Embidia Technologies
 Photographer: Rick Sfera, courtesy of Weisman Art Museum

Carleton College Weitz Center for Creativity

page 26

Location: Northfield, Minnesota
 Client: Carleton College
 Architect: Meyer, Scherer & Rockcastle, Ltd. (MS&R)
 Principal-in-charge: Thomas Meyer, FAIA
 Project designer: Tamer Azzazi
 Project manager: Jeffrey Mandyck, AIA
 Project team: Garth Rockcastle; Traci Lesneski; Megan Eckhoff; Sam Edelstein; Edgar Jimenez; Brendan Sapienza
 Energy modeling: The Weidt Group
 Structural engineer: Meyer, Borgman, and Johnson, Inc. (MBJ)
 Mechanical engineer: Doody Mechanical, Inc.
 Electrical engineer: Hunt Electric Corporation
 Civil engineer: Sunde Engineering, PLLC
 Construction manager: McGough Companies
 Landscape architect: oslund.and.assoc.
 Landscape project team: Tom Oslund; Sandra Rolph
 Theater consultant: Schuler Shook
 Acoustical consultant: Talaske
 Technology consultant: Elert & Associates
 Photographer: Lara Swimmer

Valley Performing Arts Center at California State University, Northridge

page 30

Location: Los Angeles, California
 Client: California State University, Northridge
 Firm of record: HGA Architects and Engineers (HGA)
 Principal: Gary Reetz, AIA
 Design architect: Kara Hill
 Project manager: Jamie L. Milne Rojek, AIA

Project architects: Rebecca Krull Kraling, AIA; Robert Lundgren, AIA
 Architecture team: Cheryl Amdal; Kendra Beaubien, AIA; Rebecca Celis, AIA; Naomi Burchett, AIA
 LEED consulting: HGA
 Energy modeling: HGA
 Structural engineer: HGA
 Mechanical engineer: HGA
 Electrical engineer: HGA
 Civil engineer: HGA
 Lighting design: HGA
 Construction manager: C.W. Driver
 Landscape architect: Pamela Burton & Company
 Landscape project team: Pamela Burton; Stephen Billings, Assoc. AIA
 Acoustics consultant: McKay Conant Hoover, Inc.
 Theatrical consultant: Auerbach Pollack and Friedlander
 Audio-visual consultant: McKay Conant Hoover, Inc.
 Stone cladding: American Tile & Brick Veneer, Inc.
 Plaza and pool stone: American Tile & Brick Veneer, Inc.
 Travertine stone floors and base: American Tile & Brick Veneer, Inc.
 Stained concrete: Paul M. Wolff Co.
 Wood stage floors: Roy's Flooring
 Window systems: Sashco, Inc.; Old Castle Glass; Vistawall
 Architectural metal panels: Weiss Sheet Metal, Inc. (exterior cladding); Metallon (exterior screen wall and canopy panels)
 Ornamental metals: CraneVeyor Corp
 Concrete work: Klorman Construction (interior); Shaw & Sons (exterior)
 Plaster and drywall: Superior Wall Systems, Inc.
 Wood ribbons and ceiling elements in hall: CW Wegner, Inc.
 Wood paneling and millwork: Architectural Millwork
 Cabinetwork: SMI
 Architectural Millwork
 Photographers: Tom Bonner
 Photography: Loren Peter Ahles, FAIA

Inver Hills Community College Classroom Addition and Fine Arts Building Renovation

page 36

Location: Inver Grove Heights, Minnesota
 Client: Inver Hills Community College, Minnesota State Colleges and Universities
 Architects: Lunning Wende Associates; Bahr Vermeer Haecker (BVH) Architects
 Principal-in-charge: Scott Wende, AIA
 Project lead designers: George Haecker, AIA; Robert Lunning
 Project manager: Robert Lunning
 Project architect: Nicolette Amundson, AIA
 Project team: Sean McFarland; Kelley Rosburg, AIA; Rachel Reiser
 Structural engineer: BKBM Engineers, Inc.
 Mechanical engineer: LKPB Engineers, Inc.
 Electrical engineer: Wunderlich Malec, Inc.
 Civil engineer: BKBM Engineers, Inc.
 Lighting design: Lunning Wende Associates; BVH Architects
 Interior design: Lunning Wende Associates; BVH Architects
 Acoustician: C&C Consultants
 Construction manager: Stahl Construction Company
 Landscape architect: Sanders Wacker Bergly, Inc.
 Landscape project team: Bill Sanders; Kathryn McFadden
 Artwork: Alexander Tylevich (interior public art); Sears+Myklebust (exterior public art)
 Face brick: Minnesota Mutual; Donald R. Frantz Construction Company
 Cabinetwork: Anderson Cabinet
 Flooring systems/materials: Sant'Agostino; Harrison Tile Company
 Window systems: Wausau Windows; W.L. Hall Company
 Architectural metal panels: Rhienzink/Peterson Aluminum; Progressive Building Systems, Ltd.
 Concrete work: Donald R. Frantz Construction Company
 Photographer: Steve Bergerson

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